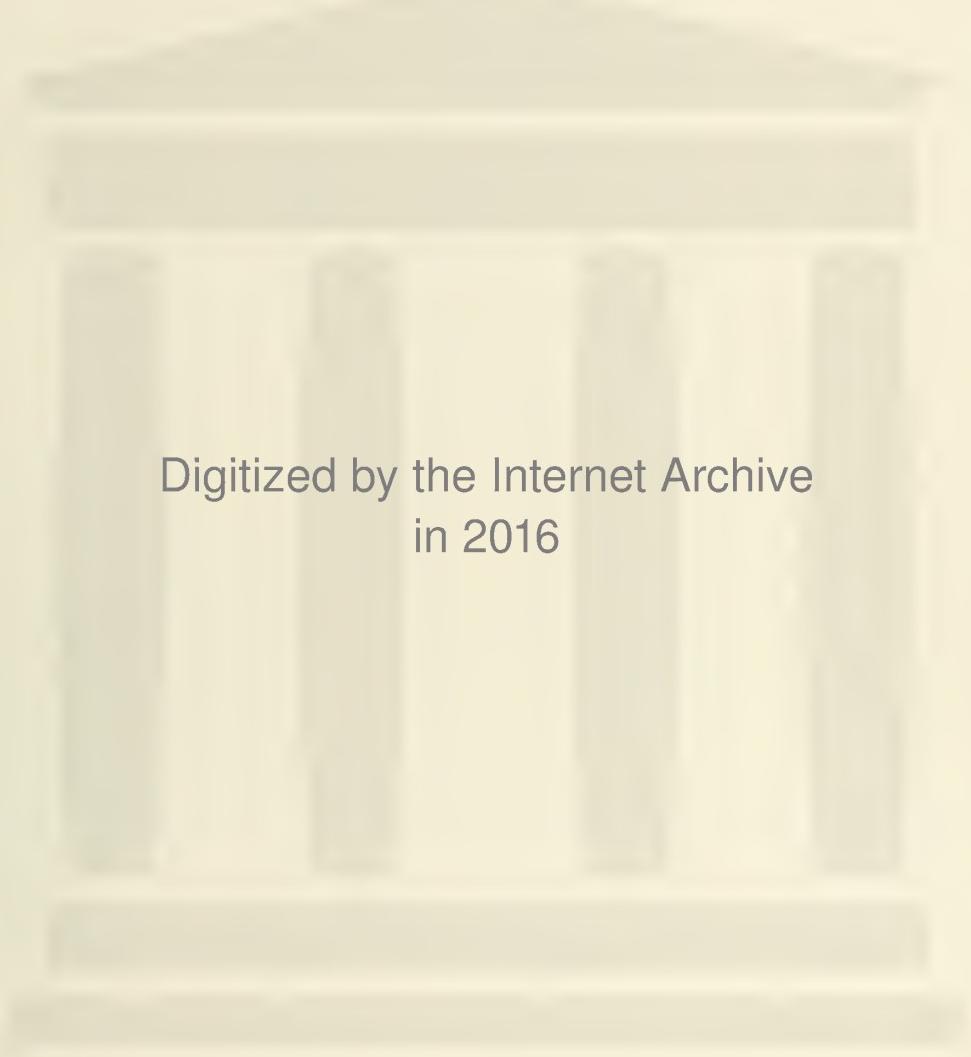


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CIRCULATES AFTER NOV 19 1963

"RED-HOT" ISSUE IN SPRINGFIELD: How ISMS Committee laid groundwork for favorable legislation on laboratory licensing passed last month by 73rd General Assembly. See page 25.

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JULY, 1963

IMJ

Illinois Medical Journal

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

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LEGISLATIVE LISTENING POST

July, 1963

STATE LEGISLATIVE ACTIVITY

The legislative activities for this session of the Legislature came to a close in a rather unusual manner. The two branches became embroiled in a controversy which apparently stemmed from a reported move to make a change in the Budgetary Commission chairmanship.

While all bills on the Calendar were disposed of, night sessions of both Houses were called June 28. The House approved a resolution certifying to the Governor that a disagreement existed on sine die adjournment and at about 11:00 p.m. in the Senate, the Lieut. Governor read a proclamation from the Governor declaring the two branches to be in adjournment until January 6, 1965. However, immediately after he left the rostrum, the President Pro-Tem of the Senate took the rostrum and entertained a motion to recall certain bills previously passed, to the order of 3rd reading. The motion was approved and the Republican Senators then voted to adjourn until Saturday, June 29, at 10:00 a.m. The House at 11:37, June 28, heard the proclamation of the Governor adjourning the Assembly until January, 1965.

With the President Pro-Tem presiding on Saturday, June 29, the Senate convened at 10 a.m. and immediately called a Republican caucus. Following the caucus, they reconvened in the Senate chambers and approved a resolution embodying final adjournment, and the session ended at 11:37 a.m.

A final summary is not available at this time. The legislature-approved bills are now in the hands of the Governor for his signature or veto. A complete summary will be published as soon as possible.

Late Actions

HB 963 -- Nursing Act

Amends Sections of the Nursing Act: Redefines professional and practical nursing; increases membership qualifications for the nursing committee; provides that the nursing coordinator assistants have at least a Master's degree; adds a two year junior college program; etc.

ACTION: Passed by House and Senate. However, after disastrous amendments were added it was tabled by the sponsor.

HB 964 -- Nursing Act

Amends sections of the Nursing Act--requires licensing of practical nurses.

ACTION: Defeated in the Senate.

miss. you ask.

SB 1103 -- Registration

Requires a one-time registration or census of clinical laboratories, blood banks and blood bank depositories and includes an appropriation of \$30,000 for the Department of Public Health.

ACTION: Passed both Senate and House.

SB 1104 -- Survey Study

Creates a commission to survey and study clinical laboratories, blood banks and blood bank depositories; appropriates \$10,000.

ACTION: Passed both Senate and House.

HB 1578 -- Phenylketonuria Education

Gives the Department of Public Health certain power and duties relating to phenylketonuria and includes voluntary reporting by physicians of known cases to the Department. Appropriates \$50,000.

ACTION: Passed both Senate and House.

SB 1234 -- Unlicensed Chiropractors

Amends Section 9a of the Medical Practice Act. The chiropractors must meet qualifying standards by January 31, 1966 (now 1964).

ACTION: Passed both Senate and House.

SB 1020 -- Director of Public Health Salary

Amends the Civil Administrative Code to increase the salary of the Director from \$15,000 to \$22,500.

ACTION: Passed both Senate and House.

SB 632 -- Pharmacy Practice

Broadens definition of practice of pharmacy to include drug use consultant; defines supervision and unprofessional conduct; makes it unlawful for registered assistant pharmacists to operate pharmacy more than a minority of the business hours of each day, or registered pharmacist to have more than one apprentice; etc.; includes amendments added at request of ISMS.

ACTION: Passed both Senate and House.

HB 1514 -- Unlicensed Osteopaths

Amends Section 13 of the Medical Practice Act providing that the Department license people who graduated from an Osteopathy College when not approved if subsequently approved under reciprocity--opposed by ISMS.

ACTION: Passed both Senate and House.

SB 1201 -- Pharmacy Ownership

Adds new section to the Pharmacy Practice Act to provide that after January 1, 1964 no person may purchase, lease, acquire, establish, manage or supervise a drug store or pharmacy except as a registered pharmacist.

ACTION: Tabled in Committee.



Illinois Medical Journal

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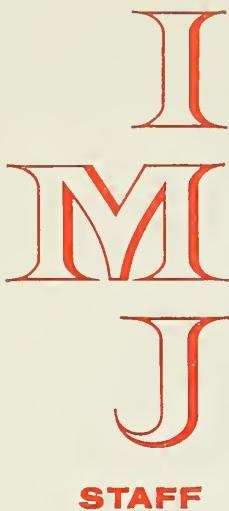
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AS I SEE IT FROM '360'

By ROBERT L. RICHARDS
Executive Administrator

ISMS Scores High In General Assembly

The 73rd Session of the Illinois General Assembly is now history following adjournment June 29—a few hours ahead of the Constitutional deadline.

It is impossible at this time to attempt a final tabulation of the legislation affecting the membership of the Illinois State Medical Society. There is always considerable confusion at the end of the biennial legislative session. No completely accurate list of bills passed is available until the journals of the two branches have been printed. Of the more than 3,200 bills and resolutions introduced approximately 1,200 have been passed by both houses and forwarded to Governor Kerner for his signature or veto.

However, it is apparent that the session of the Legislature has been successful in the aims of the Society. Constructive legislation in the medical sphere has been passed and several bills were defeated in committee or on the floor which would not have been in the best interest of organized medicine.

Much time was spent by the Legislature to bring about constructive legislation for the operation of welfare programs in Illinois. The Illinois Public Aid Commission was made a code department under the direct supervision of the Governor. Other actions of importance will be found listed in detail in the "Legislative Listening Post"—which appears monthly through the Legislative Committee. As further information becomes available it will be printed for your information. Remember your Springfield Regional office is always ready to be of service to you in this area of activity.

This relatively optimistic report must not, however, lull us into complacency. Several weaknesses have been brought out during the Session. Personal communication between the physician and his own legislator must be increased to insure maximum effectiveness of ISMS legislative efforts.

Our experiences in Illinois will now be utilized as we focus on the national scene. Monumental efforts will be exerted during the coming months by many groups to effect major legislation dealing with medical care.

Your Legislative Committee will be working to assure that your views are heard and acted upon. They need your help.

The Physician and the Clinical Laboratory

A review of the current status in Illinois

JAMES B. HARTNEY, M.D., Chicago

The Laboratory and the Patient

The years since the end of World War II have seen a pronounced increase in the application of the methods of the basic medical sciences to problems of the diagnosis and treatment of disease. Techniques of gross and microscopic anatomic examination of tissue, the use of microbiologic methods, chemical analysis of blood and body fluids, and the use of immunological methods have all made their contribution to the changing scene of medical practice in this country. The application of these methods, constituting the broad field of clinical pathology, has required the introduction of new apparatus, the recruitment and training of scientific and technical personnel at levels ranging from the high school graduate to those holding Ph.D. and M.D. degrees, and the provision of laboratories to house these workers and their equipment.

Techniques lumped under the term "laboratory examinations" or more familiarly "lab tests" may be employed as part of a broad program of study directed at uncovering new knowledge or widening the scope of presently available knowledge. More frequently, in the experience of the average medical practitioner,

One of the "hottest" medico-legal issues in Illinois recently has been the adequate quality control and licensing of blood banks and clinical laboratories. Much of the groundwork on this issue was laid down by the ISMS Committee on Laboratory Evaluation and resulted in passage of two ISMS-sponsored bills during the recent session of the legislature. The first bill provides for one-time registration or census of all laboratories and blood banks in Illinois; the second, for the formation of a legislative commission to undertake a two-year study of these institutions and recommend appropriate legislation.

Passage of these bills represents a significant victory for organized medicine in Illinois, and reflects the dedicated efforts of Dr. Hartney and his committee to protect and improve the health of our citizens.

The Editor.

they are directed toward the establishment of accurate diagnosis in an individual patient or in control of treatment of disease already diagnosed. In the hands of physicians dealing with problems of public health, microbiologic methods make their contribution to increasing life span by identifying living agents of disease in the population so that epidemics may be recognized and controlled, food and water supplies

Chairman, Committee on Laboratory Evaluation,
Illinois State Medical Society.

safe-guarded, waste disposal monitored.

The American medical profession has wisely recognized that when instrumental methods are applied to the solution of problems of individual patient diagnosis and management they should be carried out under the direction of a physician.* Although the actual manipulations involved in the examination of specimens may be carried out by other workers, experience has proven that the guidance of a physician trained in medicine "in all of its branches", with additional competence in laboratory methods, is highly desirable. The breadth of his professional background makes him vividly aware of the vital importance of proper selection of methods, their precise performance and accurate interpretation. His dual training, as a physician, in the broad area of medical science, with his additional specialized training in the techniques of the basic sciences qualifies him as a link between the patient's bedside and the laboratory bench side. As a physician, he is motivated to patient service rather than personal gain and as a unit in the structure of organized medicine, he is subject to the scrutiny and discipline of his colleagues in the profession.

Committee on Laboratory Evaluation

Unfortunately, not all clinical laboratories are under the direction of such physicians. Technical personnel may or may not be adequately trained, their equipment may or may not be appropriate to the burden of responsibility which they assume. Experience has pointed out the existence of abuses in which poorly trained individuals working with inadequate equipment may accept specimens for examination and issue reports of dubious value to the referring physician. When such is the case, there is room for suspicion that the motive of personal gain has taken precedence over the objective of patient care. In this, as in other fields of medicine, self-laudatory advertising, the distribution of unsolicited fee schedules, and thinly veiled suggestions to "buy cheap and sell dear" through the medium of contract laboratory services at a fixed fee may serve to

identify the fringe practitioner. Experiences of recent years in New York City and the possible occurrence of such practices in Illinois led to the appointment of a Committee on Laboratory Evaluation by the Council of the Illinois State Medical Society in 1961.

The Committee on Laboratory Evaluation undertook a review of existing laws and regulations in this and other states. As might be expected in a pluralistic society, laws and procedures vary widely. They range from no governmental recognition of the existence of clinical laboratories to instances in which the conduct of clinical laboratory examinations is defined as a portion of the practice of medicine to be carried out only by a licensed physician and his associates. The intermediate ground includes a variety of attempts to regulate and control the staffing and function of clinical laboratories through a wide range of licensure and inspection requirements.

The Committee on Laboratory Evaluation of this Society felt that an initial approach to the elevation of standards of laboratory medicine in this state should be made through the voluntary mechanisms of organized medicine, rather than an appeal for extension of governmental control to a segment of medical practice via the medium of legislation to license and control clinical laboratories. Some of the reasons for this decision were: a) Such licensure removes the laboratory from direct control by the medical profession. It confers an autonomy which may not be appropriate to certain individuals and suggests that diagnostic laboratory examinations are not necessarily a medical function; b) the frequently included "grandfather clause" tends to confer legitimate status on the individuals whose activities have made necessary the development of governmental control procedures, and on those whose qualifications might not permit them to achieve recognition if they were required to meet the same standards as persons applying at a later date; and c) licensure and review procedures conducted under provisions of statute are usually cumbersome and time consuming. They are initially expensive and become progressively more so. Their existence serves as a stimulus and a challenge to find ways of escaping their full effect and an incentive to seek to broaden the included base.

*ISMS Resolution #1961-1927

AMA House of Delegates Resolution #17, 1961

Program of the Illinois Department of Public Health

The existing voluntary proficiency testing program of the Illinois Department of Public Health surveys the competence of laboratories to perform serologic tests for syphilis, blood group and Rh determinations, conduct examinations for tubercle bacilli and dark-field examination for *T. pallidum*. The program is compulsory only to the extent that laboratories desiring to have their results accepted for prenatal or pre-marital serologic tests for syphilis must have demonstrated their competence in performing these examinations. It must be emphasized that certification of competence in these fields is not a "license" to conduct a clinical laboratory nor does it attest to the capacity of the laboratory and its personnel to perform other examinations in a satisfactory manner. Laboratories participating in this program agree not to use their certificates in a manner tending to suggest that they certify competence in all fields of laboratory examinations, and not to reproduce their certificates in advertising. It should be noted that this agreement has been ignored by some advertising laboratories.

The Committee on Laboratory Evaluation in its 1962 report to the Council of the Illinois State Medical Society presented a program which its members felt was in keeping with the best traditions of American medicine. Briefly stated, it proposed that the evaluation of clinical laboratories be decentralized to the district, county, or branch level with the formation of local committees on laboratory evaluation which might adopt standards suited to the needs of the community, use evaluation techniques adapted to the local situation, and recommend to the local members of the medical profession that they refer specimens or patients only to laboratories evaluated as satisfactory by the local committee. The action of the House of Delegates in 1962 was to recommend the formation within each Councillor District of a Committee on Laboratory Evaluation that could advise the County Medical Society, or in the case of the Chicago Medical Society each

Braunch, as to the competence and degree of professional supervision of clinical laboratories.*

The Committee on Laboratory Evaluation of the Illinois State Medical Society was continued by reappointment for the year 1962-63. During this year, it has become apparent that the option of formation of local committees on laboratory evaluation has not been widely utilized. The Chairman was accordingly instructed by the Committee members to prepare this discussion for distribution to the membership of the Illinois Medical Society and to include in the presentation the suggestions of the state committee for a program which might be followed by a local committee. These are:

Laboratories might be approved if they were under the supervision of a physician recognized by his colleagues as having special competence in the field of laboratory medicine and who would be responsible to the patient and referring physician for the examinations carried out in the laboratory; if the laboratory were adequately equipped for the examinations performed, adequate records maintained, and the technical personnel trained in a manner judged adequate by the local committee; if there was evidence of participation in programs of quality control and of continuing education; if there were no unethical practices, including objectionable advertising, division of fees, or referral of specimens to other laboratories without the knowledge and consent of the referring physician.

It is recognized that this program has the weaknesses of voluntary participation, but it is also considered to have the strength inherent in such a program. Local committees may be unduly lenient in applying criteria of satisfactory performance, and the profession at large may not cooperate by referring patients only to those laboratories evaluated as satisfactory by the local committee. The adoption of such a program would maintain control of medical practice by the profession, would not impose on the State of Illinois the expense of maintaining an additional licensure and evaluation system and would provide a situation of flexibility and responsiveness to local needs by

*Report of Reference Committee on Scientific Activities ISMS House of Delegates, 1962.

virtue of the local administration of the program.

Good medical service and adequate patient care do not "just happen", but must be worked at in season and out, 365 days of the year. The continuing review of the professional work of individual physicians by their colleagues at the local level is a keystone of the free system of American medical practice. It provides a stimulus to self-examination and self-improvement which has been a major factor, along with vigilant guardianship of the individual physician-patient relationship, in providing our people with an unexcelled level of medical service. As in other fields of medical practice, the provision of adequate laboratory medical care requires continued study and review. There is room and need for clinical pathologists as specialized medical practitioners in this field, for technologists and allied medical scientists

working with the medical profession, and for physicians devoting the major portion of their time to practice outside of the laboratory who will still maintain an interest constituting part-time specialization in laboratory medicine.

The elevation of standards of laboratory practice of medicine in Illinois is within the power of the medical profession in this State. A basic tenet of American medicine is the superiority of the voluntary system of control, through the concerted application of the weight of opinion of physicians, over that characterized by the imposition of arbitrary standards by governmental authorities. The lay domination of one segment of medical care, however well intended and however immediately effective it may seem, still serves to weaken the fabric of the profession as a whole and to open the way for further piecemeal reduction in the sphere of physician influence.

Bibliography for Oration in Medicine

In the interest of timeliness, the Oration in Medicine delivered by Edward H. Reinhard, M.D., St. Louis, at the 1963 ISMS Annual Convention, was published in its *original, orally-presented form* in the June issue of the Illinois Medical Journal. Since the Oration largely was a review based on the work of many investigators, Dr. Reinhard has requested that the following bibliography be published as a necessary addenda. The version published last month also omitted an extensive slide presentation used in the actual oration and therefore does not represent a completed manuscript.

Metabolic and Other Systemic Effects of Cancer Edward H. Reinhard, M.D.

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Acute Cholecystitis

FIGURE 1. A stone impacted in the cystic duct is the usual causal factor of acute cholecystitis.

E. LEE STROHL, M.D., WILLIS G. DIFFENBAUGH, M.D., and RAYMOND E. ANDERSON, M.D., Chicago

THE TREATMENT OF ACUTE INFLAMMATION of the gallbladder has been a controversial subject for many years. The controversy began in 1923 when Sir James Walton,¹ of England, proposed that surgery should be carried out early after the onset of the inflammatory process. His suggestion was a departure from the prevailing opinion of the time.

In America, Heuer² was among the first to advocate early surgery for this disease. His opinion was shared by Heyd,³ Eliason and Stevens,⁴ Stone and Owings,⁵ Kirschner,⁶ H. F. Graham,⁷ Judd and Phillips,⁸ Mentzer,⁹ R. H. Miller,¹⁰ Zinninger,¹¹ Glenn and Moore,¹² and Alexander.¹³ On the contrary, strong opinions for delayed surgery continued to be voiced by Behrend,¹⁴ Bruggeman,¹⁵ Cave,¹⁶ Deaver,¹⁷ Bland-Sutton,¹⁸ E. A. Graham,¹⁹ and Love.²⁰ Because of this difference of opinion in the surgical treatment of acute cholecystitis, much

confusion exists in the minds of many internists and surgeons as to the proper method of treatment.

During our training period, we were taught that surgery for acute cholecystitis could be delayed for a few days, provided the pulse, temperature and subjective symptoms permitted. When the patient was in good condition, a cholecystectomy was performed. In desperate conditions, with toxemia, and evidence of gangrene or perforation, cholecystostomy was done. In the past quarter century, many advances have been made in the preoperative and postoperative management of surgical patients. These advances include improved anesthesia methods and techniques, chemotherapeutic agents, antibiotic drugs, the availability of whole blood and blood substitutes, and an improved knowledge of physiology, including fluid, electrolyte and chemical deficiencies, and their replacements. Our management of acute cholecystitis, therefore, has been influenced by these advances. The pathologic process of acute cholecystitis, however, has not changed. Acute cholecystitis occurs frequently and the complications are severe. It is proper, therefore, that one should periodically review the management of acute cholecystitis in the light of our better understanding of the disease, its complications,

From the Departments of Surgery Presbyterian-St. Luke's Hospital, Cook County Hospital and University of Illinois College of Medicine, Chicago, Illinois.



FIGURE 2. Edema and swelling around the stone prevent the outflow of both bile and mucus, causing distention of the gallbladder.



FIGURE 3. The entrapped bile produces a chemical inflammatory reaction. This varies with the degree of concentration of the bile and the amount of mucus present.

and the sequela of the disease.

Incidence

In a previous report, we found acute cholecystitis, pathologically confirmed, was present in 9.5 per cent of 1240 patients undergoing biliary tract operations.²¹ At the Lahey Clinic, Adams and Stranahan found the incidence to be 5 per cent in 1104 patients,²² whereas Heuer reported 23.5 per cent of 1142 patients, from the New York Hospital.² On the other hand, Buxton, Ray and Coller, reporting from the University Hospital, Ann Arbor, Michigan, found an incidence of 1.5 per cent in 7019 patients with all types of biliary tract disease, excluding neoplasm and trauma.²³ The incidence of acute cholecystitis will vary with the type of hospital reporting. The reports of acute cholecystitis should be based upon the pathologic confirmation of the disease. On many occasions, the clinical impressions of acute cholecystitis cannot be confirmed by the pathologist.

Age and Sex

Acute cholecystitis occurs more frequently in the older patient; 64.4 per cent of our patients

were over sixty years of age, and 84.7 per cent were more than fifty years of age. Sixty-eight per cent of patients having acute cholecystitis were females, and 32 per cent were males.

Pathogenesis

A stone impacted in the cystic duct is the usual causal factor of acute cholecystitis. Stones were present in 85.6 per cent of our patients. Obstruction of the cystic duct is followed by distention of the gallbladder. The entrapped bile produces a chemical alteration of gallbladder mucosa, a chemical cholecystitis. It has been shown by Womack and Hafner, experimentally, that the acute inflammatory changes vary in severity in direct proportion to the concentration of the gallbladder bile.²⁴ The distention of the gallbladder may impair the blood supply. Small areas of gangrene and perforation may follow. Bacteria may invade the damaged tissues by way of the lymphatics, or bacteria may be present in the gallbladder bile which has passed through the liver into the gallbladder (Fig. 1-6). One can obtain positive bacterial cultures in but about 35% of patients having acute cholecystitis.²⁵⁻²⁷ Acute noncalculous cholecystitis, however, may ac-



FIGURE 4. Gangrene of the gallbladder wall in one or more areas may follow.

count for 5 to 10 per cent of all reported cases of acute cholecystitis. Many etiologic factors may contribute to such a disease entity. These include bacteria which have passed through the liver with the bile, bacteria from the bloodstream, or bacteria which have reached the gallbladder by way of the lymph channels. Some investigators have placed great importance on the reflux of pancreatic juice as an inciting agent in acute cholecystitis. In addition, the vascular changes of arteritis, arteriolitis, and the terminal changes of arteriosclerotic disease have been considered as etiologic factors in acute noncalculous cholecystitis. Noncalculous cholecystitis can proceed to gangrene and perforation in a manner similar to that seen in calculous cholecystitis. The attack, however, is more insidious, with no acute episode at the onset. As the pain increases, the area becomes more tender and the gallbladder enlarges. The pathologic changes in acute calculous and noncalculous cholecystitis are similar except for the presence of stones. The time required for the changes to appear in the calculous or noncalculous gallbladder varies with the degree of obstruction of the blood supply to the gallbladder.

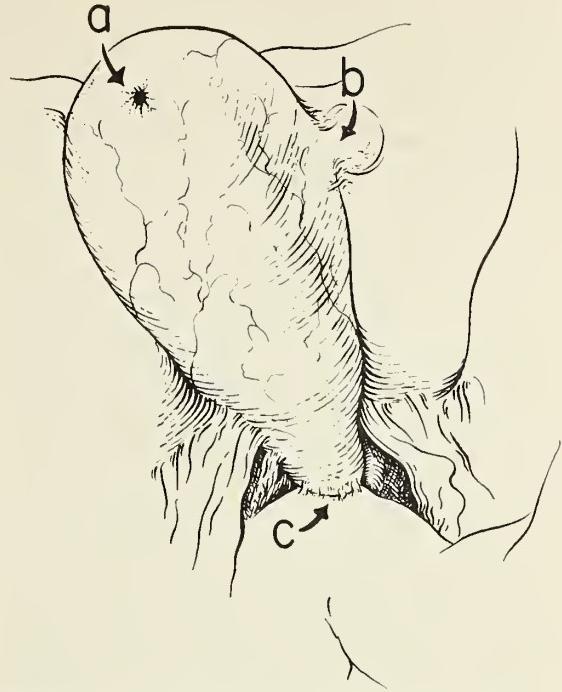


FIGURE 5. Perforation may occur in one of the following ways: a. Into the free peritoneal cavity (29%); b. About adhesions forming a peri-cholecystic abscess (52%); c. Into adjacent hollow viscera (19%).

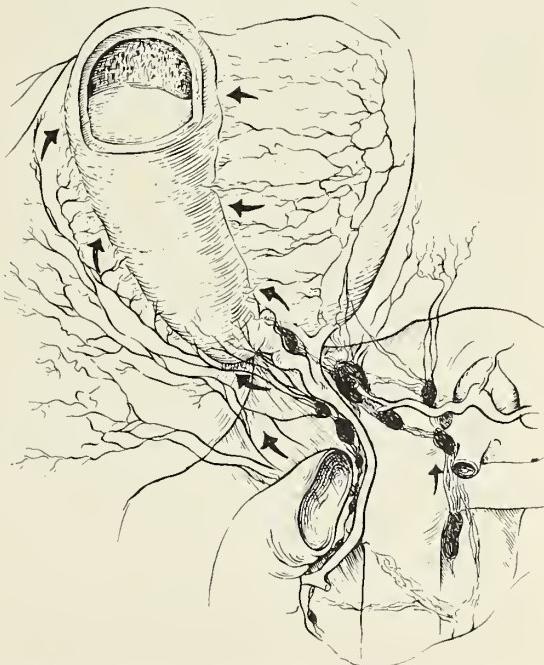


FIGURE 6. Purulent material may form in the gallbladder (empyema), but in no more than half is the process of infectious origin.

Symptoms and Clinical Findings

In no other acute abdominal condition is there so frequently a lack of correlation between the clinical manifestations and the severity of the pathology, as in acute cholecystitis. At operation, extensive pathology, and frequently gangrene, can be found in about one-third of the cases which have subsided clinically.^{2,9,11,28} 60 per cent of patients have a significant elevation of temperature (over 100° F. orally). 73.8 per cent reveal a leukocytosis (above 10,000). We have noted, however, a drop in the leukocyte count, and a fall in the temperature, despite progression of the pathologic process.

The serum amylase may be elevated in association with an attack of acute cholecystitis. The development of a palpable tender mass in the right upper quadrant, despite subsiding clinical and laboratory findings, is an indication of progression of the pathologic process. A palpable mass was present in 58 per cent of our series.

A rise in the pulse rate, while under observation, is further evidence of increasing pathology. It has been pointed out repeatedly that acute cholecystitis may follow surgery for other conditions. The minimal symptoms and findings, so frequently present, may be masked by post-operative distention, or, attributed to other postoperative complications.

Treatment

In an honest appraisal of our results, we should classify our complications and the failures into one of the following groups:

1. Error in judgment;
2. Error in technique at the time of surgery;
3. Progression or complications of the disease.

It follows, therefore, that acute cholecystitis should be analyzed along these lines.

A marked discrepancy between the clinical symptoms of the patient, and the course of pathologic process in the gallbladder, can be demonstrated regularly.^{2,29} A patient with leukocytosis, fever, a mass, and evidence of right upper quadrant inflammation demands surgery. The surgery should be done after a complete

evaluation of the patient has been carried out and the patient brought to an optimum level. These patients can usually be prepared in twelve to twenty-four hours.

Coronary occlusion, pancreatitis, peptic ulcer, diverticulitis, pneumonia, and other diseases must be ruled out. This is particularly true in the older age group, in which other complicating diseases are so frequently associated with acute cholecystitis.

We have emphasized that acute cholecystitis may develop during the convalescent period from unrelated surgery. It is an interesting historical fact that the first case of gangrene of the gallbladder, with perforation, followed by peritonitis and death, was reported by James Duncan, of Edinburgh, in 1844.³⁰ These complications followed a femoral herniorrhaphy in a young woman, and, were found at autopsy.

It is foolhardy for the surgeon to operate as a last heroic measure on patients who are desperately sick, and inadequately prepared. The presence of jaundice requires judgment as to when surgery should be done as well as to what procedures should be performed.

In the early phase of acute cholecystitis, removal of the gallbladder can be done with safety, in most instances. In the presence of excessive edema and inflammation, and where bleeding is a disturbing feature, cholecystectomy and choledochostomy are hazardous. In our opinion, cholecystostomy is a more safe operative procedure, under these conditions. Cholecystostomy, under local anesthesia, or regional block, is the procedure of choice in the poor risk patient, or, one seen in an advanced stage of the disease.

Exploration of the common duct, when the indications exist, may be done in the good risk patient in the early stage of acute cholecystitis. However, in the aged, or poor risk patient, in an advanced stage of acute cholecystitis, cholecystostomy will release the obstruction and provide drainage as a life-saving measure.³¹ If it is thought to be necessary, the gallbladder can be removed at a later date.

In a recent collective review,³² we found that the incidence of gangrene and perforation of the gallbladder in acute cholecystitis was 8.3 per cent of 7,708 patients. The mortality rate in those patients who had perforation of

the gallbladder was 19 per cent. In the autopsy material from Cook County Hospital, in a recent ten-year period, there were twenty cases of gangrene of the gallbladder with perforation.

It is because of the complications of acute cholecystitis that we recommend early surgery, as soon as the patient has been brought into an optimum status. Glenn has been even more emphatic in his philosophy of the disease, in which he states: The gallbladder containing stones should be removed, irrespective of the stage of the biliary tract disease, unless there is overriding contraindication that renders the procedure hazardous.²⁹

Summary and Conclusions

1. Acute cholecystitis, pathologically confirmed, occurs between 8 and 10 per cent of patients having calculous cholecystitis.

2. The disease is found with much greater frequency in the aged patient.

3. Gangrene and perforation of the acute gallbladder is associated with a high morbidity and mortality, particularly in the aged patient.

4. In our opinion, early surgery is indicated in acute cholecystitis, after adequate preparation has been carried out.

5. Cholecystectomy is the operation of choice, in a good risk patient, in the early course of the disease.

6. Cholecystostomy will release the obstruction and provide drainage, in the aged or poor risk patient in an advanced stage of acute cholecystitis. Definitive surgery may be done at a later date, if indicated.

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Improved Techniques in Intravenous Therapy for Premature and Newborn Infants in Incubators

HARVEY KRAVITZ, M.D., Chicago

LARGE SUMS OF MONEY are being spent by many hospitals for expensive incubators to provide optimum temperature, humidity and oxygen for critically ill premature and full term newborn infants. Yet, when venipunctures and intravenous infusions are started in these patients it is common for the physician to open the incubator in order to perform these procedures. Often these procedures are performed on a table top or on the top of the incubator. If he tries to perform these procedures with his hands through the portholes, he is literally handcuffed.

Silverman^{1,2} has shown that optimal temperature 88° F. and humidity 60-70% have an important effect on the survival of premature infants. Warley and Gairdner³ and Cook and Karlberg^{4,5} have re-emphasized the importance of high oxygen environment in the survival of premature infants with the respiratory distress syndrome. Opening the incubator imposes a real strain on the survival of these cases.

We have attempted to solve this problem by keeping the premature or mature infant inside the incubator and performing any intravenous procedure through the porthole of the incubator.⁶

Figure 1 shows how a cut-down on the saphenous vein can be performed. The mattress of the incubator is raised to the level of the inferior rim of the porthole by means of blocks or folded blankets.

Department of Pediatrics, St. Francis Hospital,
Evanston, Illinois.

An earlier report on these techniques has appeared in the American Journal of the Diseases of Children.

The leg of infant is protruded outside of the porthole. The cuff is closed so that it fits snugly about the ankle. After the vein is cannulated, the leg is placed on a board and the needle taped in place. The intravenous infusion can be run in this position, or the leg with the cutdown can be placed inside the incubator with the intravenous tubing extending from the porthole to the bottle.

Figure 2 shows a scalp vein infusion being started in an infant with his head protruding through the cuff of the porthole. The obvious advantage is that the infant is receiving the benefit of optimal temperature, humidity, and oxygen while the procedure is being performed.

Figure 3 shows an exchange transfusion being performed with the infant's lower torso protruding through the porthole of the incubator and resting on a platform allowing the umbilicus to be exposed for cannulation. Once the plastic catheter is in place, the entire infant can be returned to the inside of the incubator and the exchange performed, or, the lower torso can be kept on a tray or Mayo stand, and the exchange performed. In either case the infant will receive the benefits of proper oxygen, humidity, and temperature.

Similarly, venipunctures of the femoral vein or antecubital vein, can be performed by protruding the leg or arm through the porthole (Figure 4).

The above mentioned procedures give the physician the added advantages of better light and visibility.

Suggested improvements in the present design of the incubator which would further facilitate intravenous therapy, would be as follows:

Hypnosis in Anesthesiology

M. S. SADOVE, M.D., Chicago

WHEN DOCTOR GRANTLY DICK READ, the foremost proponent of natural childbirth, visited Chicago, a prime objective of his visit was to compare his method with hypnosis. At the conclusion of the demonstration Doctor Read was astounded. "I've been using hypnosis right along", he exclaimed, "and didn't realize it". Several years earlier, W. S. Kroger and S. C. Freed made this comparison and came to the same conclusion.¹

In the 15 years since Mesmer stumbled upon a means of intentionally inducing a trance, countless theories have been advanced as to its nature: animal magnetism, conditioned reflex, return to childhood with its freedom from responsibilities, a specialized state of awareness. The most acceptable theory today is that developed by James Braid of England over 100 years ago. The hypnotic state is the result of suggestion, whether used in the manner of Doctor Read or in its more deliberate form. We know now that the subject, or patient, is the major controlling factor by his acceptance or rejection of the administered suggestion. In reality he is hypnotizing himself through qualities of the "subconscious" mind inherent in man since prehistoric times.

Hypnosis, or more generally speaking the psychic approach, is one of the remaining areas for investigation where the anesthesiologist can add to the welfare of his patient. But is he capable of practicing what is so much a part of psychotherapy? The truth is that the modern anesthesiologist practices psychotherapy as a matter of intuition if not by design.² His man-



BRAIN WAVE SYNCHRONIZER—the electronic aid to hypnotic induction now undergoing further testing at the University of Illinois Research & Educational Hospitals.

nerisms suggest confidence or doubt, tranquility or excitement, cooperation or conflict. If he does his job thoroughly, he alleviates fears and apprehensions, suggests relaxation, establishes rapport. Consciously or unconsciously he is duplicating the pre-induction technic of a skilled hypnotist. The final inclusion of hypnosis itself merely carries this principle a step further.

The advantage of hypnosis in anesthesiology is both physiological and psychological. Almost everyone is afraid to be anesthetized, even to accepting a local anesthetic in the "gums". This being true, how much more is the fear of actual surgery. There are patients who will risk death rather than go through an operation. From the time a patient first realizes it is unavoidable he is apprehensive. If not checked, this feeling will build up day after day. It then affects not only the surgery but also the results of the operation.

Here lies one of the greatest values of hypnosis. Relaxation, acceptance, peace of mind can be achieved at almost any hypnotic level, and with a high percentage of patients. Even a soothing manner of speaking, with no apparent or intentional hypnosis, works in that direction. I never practice anesthesia without practicing hypnosis in its general meaning. In many instances the suggestion has twice the effect of the drug, representing two thirds of the desired result. For this reason hypnosis is valuable in minimizing post-operative discomfort and maintaining a tranquil attitude during recovery.

Director of Anesthesiology, University of Illinois Research & Educational Hospitals.

This brings up the question of why hypnosis works at all. Without going into the physiology of a process that still has not been satisfactorily explained, it may be stated that a hypnotized subject is perhaps five times more suggestible than he is in the normal waking state. Providing rapport has been established, he believes the statements that are told to him concerning his well being and the course of action to follow. It has been demonstrated that practically all of the phenomena experienced under hypnosis can be duplicated without it.³ But with relatively few exceptions, the same degree of belief or suggestibility experienced in the hypnotic state does not exist in the normal waking state. Therein lies the difference.

Every anesthesiologist, whether he uses hypnosis or not, aims at administering a minimum amount of drug. Where hypnosis can be achieved, the expected amount may be reduced from a few percent to 100 per cent,⁴ depending to some degree on the depth of the hypnotic trance. The number of patients who can go through major surgery with only hypnoanesthesia is probably not over 10 per cent. James Esdaile, the English surgeon, over 100 years ago reported 300 successful major operations under hypnosis, or Mesmerism as it was then called. His book details numerous case histories.⁵

Esdaile's situation shows the role of motivation on the part of the doctor. This was before the availability of chemical anesthetics and he had no choice but to induce the trance or let the patient suffer. The first reported use of Mesmerism for anesthesia took place on April 12, 1829 when Jules Cloquet, a French surgeon, performed a breast amputation.

Can the percentage of successful inductions and the general usefulness of hypnosis be improved upon? Anything that will make the patient more suggestible and less resistant will tend to shorten induction time, increase depth and reduce the number of non-hypnotizable patients. At the same time, any technic or aid that will make hypnosis more acceptable to the patient will lessen the strain on the hypnotist.

Theoretically, the spoken word should be sufficient. In practice there are circumstances under which it will not give the desired result, as physicians have stated in their search for faster and better methods.⁶ There are many

variables that may be involved — rapport, fear, misconception, comfort, semantics and other variables known and unknown.

In the standard induction process, one of the common reasons for resistance is the sense of loss of ego, or the unwillingness to surrender. The patient may resent what, consciously or unconsciously, he believes to be personal domination. Often he is not aware that he is fighting the hypnotist and even insists that he is co-operating. Another type of resistant patient is the one who is analytical and is therefore critical of suggestions.⁷ The problem of resistance has been recognized since the days of Mesmer. From that time to the present there has been a growing search for aids to hypnosis.

One method especially well suited to the physician includes the use of drugs. Yet even here there is no agreement as to which drugs will combine with hypnotic technics for ease of induction and maintenance of the trance. The value of a drug in hypnotic induction is apparently subject to the psychophysiological state of the patient at the time.⁸

It is an accepted fact of clinical studies that placebos have a 30 per cent to 40 per cent rate of effectiveness. In one of the many studies on pain relief, analgesia by placebo was achieved in 36 per cent of the doses.⁹ The reason for this is one of the factors contributing to hypnotic induction — expectation, or the belief that it will happen. If, by adding proper suggestions, the patient is assured of relief, the percentage will be higher. His belief becomes stronger. Once he begins to follow suggestions, direct or indirect, he is on the path to the hypnotic state.

Now if an adjunct is added that will act on the senses, the percentage of induction will go up a few more points. Throughout the years, literally hundreds of aids have been tried. The first known device was Mesmer's artificial magnet, which gave rise to the theory of animal magnetism. By swinging it in front of the patient, or by placing several magnets on the body, he believed that a fluid, originally from the heavens, flowed between the magnets and the patient. The date was July 28, 1774.

In recent years, aids for hypnosis have been based on fixation; that is, fixing or holding the attention to narrow the state of awareness, while verbal suggestions are given. One of the

more common devices is the revolving spiral, which is a circular piece of cardboard with a black band spiraling from the center to the edge. When the subject fixes his attention on the rotating spiral, the theory is that he will have the feeling of being drawn into it and lose awareness. A very simple object is a bright metal ball attached to a chain, forming a pendulum. This is dangled at eye level while the subject is given suggestions to sleep.

Sound is frequently used, and one such device, developed by two psychologists, produces the "hypnoidal" state through monotony of tone. This is a state of relaxation that precedes hypnosis.

A number of devices have been patented here and abroad under the claim of assisting hypnosis or inducing sleep. In 1924 a patent was issued in Berlin, Germany for a clock mechanism that produced a whirring sound instead of the usual ticking. By enclosing it in a box the vibrations were amplified.

In 1950 a U.S. patent was issued on a device that depends on the physical strength of the patient. By squeezing two levers he produces a pressure reading on a gauge. If the reading drops from a previous level it gives the impression he is becoming tired and sleepy, so the hypnotist's suggestions will be more effective.

It can be seen from this, that some aids have been psychological, some produced drowsiness or fatigue and some depend on fixation. Each has been effective on limited groups. This is apparent when we consider that the ability to accept stimuli, as well as its meaning, varies a great deal with the patient and therefore controls his suggestibility.

For an aid to be successful with the majority of the population it must combine what is known today about the psychology and physiology of hypnosis. It must allow for tolerances in individuals. It must vary to accommodate the patient. Many people would find it easier to accept hypnosis if they could blame it on an outside influence. In varying degrees, it is now possible for them to receive this psychological — physiological aid.

The first step was taken during World War II when, on occasions, radar operators were observed in a state resembling a trance. Several physiological causes were considered, in-

cluding the stimulus of the photic pulse on the brain rhythm. The latter theory was strengthened by reports of bicycle riders going into a trance when sunlight streaming through trees passed across the eyes in the form of photic pulses.¹⁰

Following the War, the search began for a method that would make this form of stimulation practical for clinical hypnosis. It soon became evident that it was necessary to consider more than the frequency of the photic pulse. The wave shape of the stimulus as well as the duration and amplitude had a marked effect. From Russia there was a report of a sleep machine, based upon the principle of electrically stimulating and driving the Alpha rhythm. A Japanese version of this was produced under the name Electrohypnosis. From our viewpoint, an undesirable feature of both methods is that electronics must be connected to the patient.

In 1958, an effective, easy to use instrument, requiring no connections and clinically feasible, was announced in the U.S. Known as the Brain Wave Synchronizer (BWS), it has helped us and others to overcome some of the major problems of hypnotic induction.¹¹ In some instances, patients have gone into a sleep-like state with the simplest of instructions: "Look through the light and feel yourself relax". We might assume that these patients were easy to hypnotize, except that some had not responded formerly to other methods.

In the Division of Anesthesiology our goal is the relief of pain. We are constantly testing new technics and products that show promise, be they drugs, electrical sleep or hypnosis. Since we began using the BWS at the hospital we have found that it brings the patient to a point highly receptive to suggestion. The impersonal feature overcomes the objection of some patients to what they believe is domination by the hypnotist. The patient who fears hypnosis is told the instrument is merely to help him relax.

In our work we found it advantageous to have a special extension unit made so the stimuli can be directly over a patient lying in bed, while the controls can be placed anywhere in the room. Because of the low light level it avoids the possibility of an epileptic EEG response which might occur in 3 per cent to 4

per cent of the normal population if intense photic stimulation were used.

Since we have found that considerable time is saved in producing the trance, that deeper levels are obtained and that resistance to hypnotic procedure is lessened, our plans with the BWS include group training programs; for example, classes for childbirth.

An interesting feature to us is the variety of effects when the controls are adjusted to the effective range. With the stimulus four feet from the patient, we adjust the instrument until he reports a reaction. Some patients describe a tingling in the fingers; others a feeling they are being drawn toward a whirlpool, or the appearance of all the colors of the rainbow. Some even state they are going under an anesthetic. Many of the reactions that occur in photic stimulation have been described in the literature.¹⁰

When the most effective area is reached we let the instrument operate for a few minutes until the patient has reached high receptivity to suggestion. The fact that an instrument is physiological in nature does not keep us from taking advantage of the psychological factors that are so effective when applying chemical anesthetics. Results are thus achieved by combining its effect with the verbalizing of the operator.

Other effects of photic stimulation were noted as far back as 1934, when Adrian &

Matthews concluded that it is possible to drive the Alpha rhythm beyond its normal rate by sensory stimulation.¹² As observed in the electrical sleep machine, there are other forms of stimulation that will produce a driving effect. In our experiments at Illinois Research Hospital we verified the driving effect of photic stimulation, using the Brain Wave Synchronizer and a standard recording EEG. The rhythm was driven both up and down from its normal rate.

We have found that the BWS speeds induction in resistant patients and makes it more acceptable, so that we can achieve usable levels of trance in over 90 per cent of our patients for whom hypnosis is indicated. However, its effectiveness in surgery over a long range must still be explored. This is now being done in a research program utilizing suitable controls.

Hypnosis never can or should replace drugs; but neither are chemicals a substitute for kindness and understanding. Some day, in the future, many of our present wonder drugs will have been forgotten, but the human relationships involved in hypnosis will still be needed, just as they have been from ancient times, ready to be used as an aid to whatever new drugs, techniques and principles are currently in vogue.

The entire thought can be summed up with my favorite statement: "Vocals are as potent as locals. They can be used or abused, depending on the skill of the operator".

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Comparison of Meralluride with a New Oral Diuretic

RICHARD M. GOODMAN, M.D., DAVID E. COMINGS, M.D., and FREDERICK STEIGMANN, M.D.
Chicago

THE ORAL SULFONAMIDE DIURETICS have in recent years largely replaced the use of parenteral organic mercurials in the treatment of edema. These sulfonamide drugs, in addition to their natriuretic and diuretic activity, have been shown to exert an antihypertensive effect in the hypertensive patient. Some of the newer compounds which have been clinically evaluated seem to be markedly potent in these respects and less likely to produce electrolyte imbalance or other undue side effects.

One of these new sulfonamides is chlorthalidone (*Hygroton®*)^{*} which, in contrast to the thiazide diuretics, is a phthalimidine with a sulfamyl side chain. Like other sulfonamide diuretics, it is believed to act by prevention of sodium reabsorption at the proximal tubule level. It is distinctive among the oral diuretics in that the natriuretic and diuretic action of a single dose continues for more than 48 hours.¹⁻⁵ This permits the use of one daily dose or even intermittent dosage three times weekly. Chlorthalidone has been reported to be an effective diuretic in the treatment of hypertension and edema of diverse origin.²⁻⁸

These reports stimulated our interest in comparing the effectiveness of this drug with that of the organic mercurial, meralluride (*Mercuhydriin®*)^{**}, in the treatment of edematous and hypertensive outpatients. An attempt was made to ascertain whether oral medication with chlorthalidone would accomplish an equally

desirable result and at the same time relieve the patient of the inconvenience of parenteral injections. Electrolyte excretion patterns were also studied in a small group of hospitalized patients with cardiac or liver disease.

Materials and Methods

Chlorthalidone was administered over a period of 12 weeks to 45 outpatients, all of whom had been previously receiving parenteral meralluride. Most patients had received one meralluride injection (2 cc.) weekly. A few had required injections twice a week. The group consisted of 26 males and 19 females ranging in age from 44 to 77 (Table 1). The majority suffered from chronic congestive heart failure, 10 also had hypertension, and 2 patients had Laennec's cirrhosis.

The patients were seen once a week and data were carefully evaluated and recorded on the following: weight, pulse, blood pressure, pedal edema, shortness of breath, orthopnea, paroxysmal nocturnal dyspnea, and drug dosage required to control symptoms. Patients were questioned and observed for any signs of hypokalemia or other possible drug reactions.

For purposes of control all patients were first observed for a period of 2 to 3 weeks on meralluride before transfer to chlorthalidone therapy. Serum electrolyte levels were determined during the control period, and early

*Chlorthalidone (*Hygroton®*), 3-hydroxy-3-(4-chloro-3-sulfamylphenyl)-phthalimidine, Geigy Pharmaceuticals, Ardsley, New York.

**Meralluride (*Mercuhydriin®*), aqueous solution of 39 mg. of the sodium salt of meralluride and 48 mg. of theophylline per cc., Lakeside Laboratories, Inc., Milwaukee, Wisconsin.

(2 to 5 weeks) and late (7 to 10 weeks) in the course of chlorthalidone administration.

After the initial control period on meralluride, all but 2 patients were started on 50 mg. of chlorthalidone three times weekly. Two, because of severity of symptoms, received 100 mg. three times weekly as the starting dose.

In addition to increase in weight, further criteria such as shortness of breath, orthopnea, paroxysmal nocturnal dyspnea and aggravation of pedal edema, were used to determine the need for increased dosage after the first few weeks of therapy. In the hypertensive patients, special attention was given to alternations of blood pressure, particularly the diastolic response, as a guide in dosage adjustment. All doses mentioned were given three times weekly.

Weight loss below 2 pounds or weight gain below 2 pounds was considered as maintenance of weight and comparable to weight on meralluride therapy. Loss of 2 pounds or over was classified as weight loss, and gain of 2 pounds or over was classified as weight gain.

Pedal edema was rated from 0 to +4. Paroxysmal nocturnal dyspnea was evaluated as to the number of episodes per night from 0 to +4.* Shortness of breath was judged by occurrence at rest, walking several blocks or mounting stairs (from 0 to +3).* Orthopnea was estimated by necessity of the number of pillows to avoid the condition (0 to +3).*

Response of these symptoms was evaluated as satisfactory from 0 to +1; moderate at +2; and slight or none at +3 or +4.

Diastolic blood pressure of 100 mm. or above was considered hypertensive. A reduction of 10 mm. or more was judged a satisfactory response.

Electrolyte excretion patterns were studied for several days in an additional group of 12 hospitalized patients, 6 with cirrhosis and 6 with cardiac edema. All were on a restricted salt diet. They were carefully observed for the response of edema, orthopnea and other symptoms as well as for possible side reactions.

Determinations were made from 24-hour urine collections on (1) volume, (2) potassium,

TABLE 1
Age and Sex of Patients

Age	Male	Female	Total
35-44	1	1	2
45-54	4	4	8
55-64	12	5	17
65 and over	9	9	18
TOTALS	26	19	45

(3) sodium and (4) chloride. Base-line determinations were done on all patients for two days before drug administration. The next day all 12 patients received a single dose of 100 mg. chlorthalidone. Two days later, 3 cardiac patients and 3 cirrhotics received a second dose. Following initial administration of the drug, the above determinations were made on each of 3 consecutive 24-hour urine collections. The mean determinations were then estimated and statistically evaluated.

Results

Weight.—After approximately 4 weeks on chlorthalidone therapy, 41 of the 45 outpatients showed a satisfactory weight response (Table 2). Of these, 23 lost weight and 18 maintained their weight. Four patients gained weight. Weight losses ranged from 2 to 22 lbs. (average of 6.6 pounds). One patient with Laennec's cirrhosis and ascites lost 22 pounds and the next greatest loss was 12 pounds in a patient with congestive heart failure.

Of the 43 patients started on 50 mg. chlorthalidone three times weekly, 21 lost weight, 18 maintained their weight and 4 gained weight. The 2 patients who had been started on 100 mg. lost weight and required no increase in dosage during the 12 weeks of therapy. Of the 21 patients who had been started on 50 mg. and lost weight, 10 later required an increase to 100 mg., and 5 required an increase to 150 mg. to satisfactorily control symptoms. Six did well on the 50 mg. starting dose and were kept on this schedule throughout therapy.

Of the 18 patients who maintained their

*Paroxysmal Nocturnal Dyspnea: 1-2 attacks = 1 +; 2-3 attacks = 2 +; 3-4 attacks = 3 +; over 4 attacks = 4+. Shortness of Breath: After less than one-half a block = 3 +; After one-half a block = 2 +; After one-three blocks = 1 +. Orthopnea: Need for 2 pillows = 1 +; Need for 3 pillows = 2 +; Need for 4 pillows = 3 +.

weight, 9 required an increase to 100 mg., 5 required an increase to 150 mg., and 4 required no increase, despite no weight loss, since they were otherwise asymptomatic. Results in this group of 18 patients were comparable to results obtained with meralluride.

Four patients who *gained weight* were put on increased dosage of 100 mg., and of these, one was later increased to 150 mg.

At the end of the observation period of 12 weeks, 10 patients were on 50 mg., 24 were on 100 mg. and 11 were on 150 mg., all three times weekly (Table 2).

Hypertension. — The 10 cardiac patients with concomitant hypertension had initial diastolic blood pressures ranging from 100 to 135 mm. Hg (Table 3). After four weeks on chlorthalidone therapy at 50 mg. dosage, diastolic pressures decreased 10-30 mm. Hg (average 16 mm. Hg) in nine patients, but increased 15 mm. Hg in one patient.

At the end of 12 weeks of therapy, by which time the dosage had been increased from 100 to 150 mg. in most of the patients, 6 patients maintained an average drop of diastolic pressure of 18 mm. Hg, 3 showed no significant change from original baseline blood pressure, and one patient showed a gain of 20 mm. Hg (Table 3).

Over-all response. — The response of the entire group of 45 patients to symptoms of edema, shortness of breath, orthopnea and paroxysmal nocturnal dyspnea was satisfactory in 37, moder-

TABLE 2

Weight Response and Chlorthalidone Dosage

	Number of Patients			
	Weight Lost	Weight Maintained	Weight Gained	Totals
Initial Dose				
50 mg. (3 x week)	21	18	4	43
100 mg.	2	0	0	2
TOTAL	23	18	4	45
Maintenance Dose				
50 mg. (3 x week)	6	4	0	10
100 mg.	12*	9	3	24
150 mg.	5	5	1	11
TOTAL	23	18	4	45

*Includes 2 initially started on 100 mg.

ate in 6 and slight or none in 2. More than half the group responded better on chlorthalidone than while on meralluride therapy.

Serum potassium levels. — Potassium supplementation was given only in cases of clinical or significant biochemical hypokalemia (Table 4). Of the 45 patients treated, 21 had neither clinical nor biochemical evidence of hypokalemia at any time during chlorthalidone therapy. All of these patients had serum potassium levels of 3.5 m Eq./liter or over. Four in this group of 21 who had low potassium levels during previous

TABLE 3
Response of Hypertension

Patient No.	Chlorthalidone/mg. 3 times weekly		Blood Pressure		
	Initial	Terminal	Initial Syst./Diast.	Decrease Diastolic 4 wks.	Decrease Diastolic 12 wks.
1	50	50	170/110	-30	-40
2	50	100	170/100	-10	-30
3	50	100	170/110	-20	-10
4	50	150	200/100	-15	-10
5	50	100	140/100	-10	-10
6	50	50	240/100	+15	-10
7	50	150	230/135	-15	-5
8	50	100	160/100	-10	-5
9	50	50	170/100	-20	0
10	50	100	200/100	-10	+20

Av. diastolic decrease in 9 patients after 4 weeks = 16 mm.
Av. diastolic decrease in 6 patients after 12 weeks = 18 mm.

TABLE 4
Serum Potassium Levels (m Eq./liter)

	Number of Cases	%	KCl Suppl. No.	%	Low on Mercuhydriin No.	%	Normal on Chlorthalidone No.	%
Normal 3.5 or over	21	(47)			4	(9)	21	(47)
Low 2.9 - 3.4								
With Weakness	5	(11)	5	(11)			2	(4)
Low 2.9 - 3.0	4	(9)	4	(9)			4	(9)
Low 3.0 - 3.4	5	(11)					5	(11)
Low 3.0 - 3.3	10	(22)			3	(7)		
TOTAL LOW	24	(53)	9	(20)	3	(7)	11	(24)
SUM TOTALS	45	(100)	9	(20)	7	(16)	32	(71)

meralluride therapy became normal during the first week of chlorthalidone therapy and remained so throughout treatment.

The remaining 24 patients at some time during treatment had subnormal potassium levels. Five with 2.9 to 3.4 levels were symptomatic and manifested weakness. Supplements of potassium chloride (3 g./day) relieved the weakness, but in all cases did not correct the biochemical level. Four patients with potassium levels below 3.0 who did not complain of weakness also received supplementary potassium, and

attained normal levels during the course of therapy. Five patients who had potassium levels ranging from 3.0 to 3.4 during the first few weeks reached normal levels in the final weeks of therapy without any potassium supplements. The remaining 10 patients had potassium levels somewhat lower than normal (3.0 to 3.3) at some time during treatment. Three of these patients had similar levels on meralluride therapy.

No significant change was noted in their serum sodium or chloride levels, and no toler-

TABLE 5
Electrolyte Excretion Patterns
Response to Single Dose
(Time given in hours after administration)

	Cardiac	Cirrhotic	All patients (\pm standard error)
Number of patients	6	6	12
1. Volume (cc)			
Base-line***	1458	1183	1320
0-24 hr. change	+761	+500	+631 \pm 179*
24-48 hr. change	+276	+446	+361 \pm 200 NSS
2. K (mEq)			
Base-line***	46.3	30.4	38.4
0-24 hr. change	+10.4	+26.1	+18.3 \pm 9.8 NSS
24-48 hr. change	+11.2	+39.2	+25.2 \pm 12.6 NSS
3. Na (mEq)			
Base-line***	72.9	69.5	71.2
0-24 hr. change	+47.0	+53.3	+50.1 \pm 19.2*
24-48 hr. change	+20.5	+53.3	+36.9 \pm 18.4 NSS
4. Cl (mEq)			
Base-line***	63.7	67.4	65.6
0-24 hr. change	+38.6	+52.4	+45.5 \pm 16.9*
24-48 hr. change	+21.6	+42.2	+31.9 \pm 16.1 NSS

* = Significant ($P = 0.01-0.05$)

** = Highly significant ($P < 0.01$)

*** = Mean of determinations on 2 days preceding first dose of chlorthalidone

NSS = Not statistically significant

TABLE 6

Electrolyte Excretion Patterns
Response On Third Day After Base-line
(Time given in hours after first dose)

	Second dose given at 48 hr.	Second dose not given
Number of patients	6	6
1. Volume (cc)		
Base-line***	1410	1230
48-72 hr. change	+396 ± 181 NSS	+382 ± 179 NSS
2. K (mEq)		
Base-line***	40.5	36.2
48-72 hr. change	+4.5 ± 7.0 NSS	+25.8 ± 10.8 NSS
3. Na (mEq)		
Base-line***	90.5	51.9
48-72 hr. change	+0.9 ± 14.3 NSS	+27.3 ± 18.6 NSS
4. Cl (mEq)		
Base-line***	76.2	55.0
48-72 hr. change	+1.6 ± 17.1 NSS	+23.4 ± 19.1 NSS

*** = Mean of determinations on 2 days preceding first dose of chlorthalidone

NSS = Not statistically significant

ance to the drug was apparent in any case.

Other side reactions, with the exception of weakness due to hypokalemia, were not observed in any of the patients.

Electrolyte excretion patterns. — In the group of 12 hospitalized patients who had received a single dose of chlorthalidone, the mean determinations of the first 24-hour urine showed a highly significant increase in urine volume ($P<0.01$) and significant increases in both sodium and chloride ($P=0.01-0.05$) above base-line values. No statistically significant increase of potassium excretion ($P>0.05$) was apparent. During the second 24-hour period, although the mean excretion values of the 12 patients were above the base-line, neither the increase in volume nor the increase in any of the electrolyte levels was significant (Table 5).

On the third day, excretion patterns were compared between the 6 patients receiving only the initial dose of 100 mg. chlorthalidone and the 6 who received a second dose. Here, again, though some increases did occur, no changes from the base-line nor differences between the two groups of patients were statistically significant with respect to any of the four factors measured (Table 6).

Table 7 shows in detail the excretion patterns

TABLE 7

Typical Excretion Patterns — One Cardiac Patient

	Vol. (cc)	Sodium (mEq)	Potas- sium (mEq)	Chlo- ride (mEq)
Base-line (2 days before dosage)				
1st day	2200	126.7	44.0	70.4
2nd day	1730	84.2	51.0	54.2
First dose				
100 mg. chlorthalidone				
0-24 hr. deter- mination	4250	106.2	34.0	136.0
24-48 hr. deter- mination	850	51.3	14.4	44.2
Second dose				
100 mg. chlorthalidone				
48-72 hr. deter- mination	2100	73.9	26.3	63.0

of one of the cardiac patients. These findings were typical of the group that received the second dose of chlorthalidone on the third day of treatment.

Clinically, all 12 patients improved, with loss of edema and orthopnea. There were no significant changes in serum electrolytes and no other side effects were observed or reported.

Discussion

Chlorthalidone in doses of 50-150 mg. three times weekly was a clinically effective diuretic agent in patients previously on meralluride therapy. In the group of 45 patients treated for 12 weeks, the over-all response was satisfactory in 37, moderate in 6 and slight or none in 2. Most patients were started on a 50 mg. dose, three times weekly. As treatment progressed, this was increased in approximately two-thirds of the group as dictated by the continuing response of symptoms. At the end of the 12-week observation period, 10 patients were on 50 mg., 24 on 100 mg., and 11 on 150 mg., three times weekly.

In 23 patients, weight losses averaged 6.6 pounds over any weight loss obtained on meralluride. Eighteen patients maintained their

weight as on meralluride, and 4 gained weight.

In the 10 cardiac patients who had concomitant hypertension, 6 showed an average decrease of 18 mm. in diastolic pressure beyond that obtained with meralluride.

It is possible that weight losses, as well as decreases in blood pressure, might have been greater if the initial dosage of chlorthalidone had been higher than 50 mg. three times weekly or had been increased after 2 weeks instead of 4. Other investigators have reported that the optimal diuretic response is obtained in most patients on a dosage schedule of 100 mg. three times weekly.^{4,7} On the other hand, a good hypertensive response is more often obtained with higher doses of 100 to 200 mg. daily^{7,8} and may be enhanced by concomitant use of other hypotensive drugs such as reserpine. Apparently, the matter of dosage is determined by the individual needs of each patient and the salt intake permitted. Since doses as high as 400 mg. have been reported with no marked side effects,^{9,10} dosage adjustment would seem to present no serious problem. All patients welcomed the relief from parenteral injections and appreciated the convenience and economy of oral medication.

During the course of chlorthalidone therapy, the only side effect which required special attention was the appearance of potassium depletion or occasional weakness. Hypokalemia has been known to occur frequently during administration of many of the oral sulfonamide diuretics, and was even present in 7 of our patients while on meralluride therapy, 4 of whom subsequently became normal on chlorthalidone treatment. Of the 45 patients in our study, 21 had no hypokalemia at any time during the course of therapy (*i.e.*, serum potassium levels were 3.5 m Eq./liter or higher). Of the 24 patients who at some time during chlorthalidone therapy had potassium levels of 3.0 to 3.4, 5 reached normal levels during therapy; 4 with levels below 3.0 who received potassium supplements (3g./day) also became normal during therapy; and in 5 who manifested weakness with 2.9 to 3.4 levels, supplementary potassium relieved the weakness but did not correct the biochemical level in every case. Ten patients with levels slightly under normal (3.0 to 3.3) received no potassium. In 3 of these cases, sim-

ilar low levels were noted on meralluride therapy. All in all, 9 patients received potassium supplementation during chlorthalidone treatment.

Electrolyte excretion studies in 12 hospitalized patients showed statistically significant increases in urine volume and in sodium and chloride excretion after the first 24 hours following a single dose of 100 mg. chlorthalidone. On the third day, a similar dose given to half of the patients caused a slight increase but no significant differences in excretion patterns between these 6 patients and the 6 who did not receive the second dose. No significant increase over base-line determinations of potassium was evident at any time. Also, no appreciable changes in serum electrolytes were observed. Clinically, all 12 patients improved and were free of any side effects.

It is possible that the lack of statistically significant differences between the group on a single dose and the group receiving the second dose of the drug may have been due to the small number of patients selected for these studies. On the other hand, these results may merely reflect the distinctive, sustained action of the drug. Further study of electrolyte excretion patterns in larger groups of patients should be of value in clarifying some of the mechanisms involved.

Summary

Chlorthalidone, an oral sulfonamide diuretic derived from phthalimidine, was compared to parenteral meralluride in the treatment of 45 patients with congestive heart failure, 10 of whom had hypertension, and in 2 patients with Laennec's cirrhosis.

Treatment over a 12-week period was usually started with 50 mg. chlorthalidone three times weekly. During therapy dosage was increased in 35 patients so that at the end of 12 weeks, 10 were on 50 mg., 24 were on 100 mg. and 11 were on 150 mg., three times weekly. All patients had been on previous parenteral meralluride for several weeks.

Compared to meralluride, chlorthalidone produced a greater or equal diuresis in 41 of 45 patients: greater in 23 patients with average weight loss of 6.6 pounds; equal in 18 who

maintained their weight.

A reduction of 10 to 40 mm. Hg (18 mm. Hg average) in diastolic pressure, was noted in 6 of the 10 hypertensive patients, no significant response in 3, and an increase in one patient.

The only significant side effect observed was hypokalemia (<3.5 m Eq./liter) which occurred in 24 patients at some time during chlorthalidone therapy. Some patients subsequently became normal as treatment continued and others became normal after potassium chloride supplementation. While on meralluride therapy 7 patients also had low serum potassium levels which in a few cases became normal during treatment with chlorthalidone.

Low serum potassium levels sometimes encountered with the use of the sulfonamide diuretics may in most cases be easily corrected by careful attention to adequate dietary potassium intake or by potassium chloride supplementation during therapy.

In 12 additional patients with cardiac or liver disease, electrolyte excretion studies after a single dose of 100 mg. chlorthalidone showed significant increases over base-line values in

urine volume, sodium and chloride, but not in potassium (24-hour urine). A second dose on the third day produced slight but non-significant differences above the base-line, or compared to controls. The insignificant increases noted after the second dose may possibly be attributed to the small number of patients under study or to the distinctive, sustained action of the drug. Further evaluation with larger groups of patients should be helpful in elucidating excretion patterns in response to chlorthalidone.

Chlorthalidone, compared to meralluride, appeared to be a more effective diuretic agent in some of the above cases in respect to reduction of edema, weight loss and decrease of diastolic pressure in hypertension. It is characterized by long duration of action and no tendency to tolerance, and dosage is easily adjusted to individual needs. Economy and convenience of oral medication seem to make it more acceptable to the patient than the parenteral mercurials, and particularly useful in outpatient clinics.

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Alcoholic Myocardiopathy

GEORGE C. SUTTON, M.D. *Chicago*

PRIMARY MYOCARDIAL DISEASE related to excessive alcoholic intake, with and without associated nutritional deficiency, may be a common and frequently misdiagnosed cause of cardiac symptoms and heart failure. The exact routes by which alcohol can bring about degeneration of the myocardial fibers and of myocardial function is complex and uncertain. Historically emphasis has been on the malnutrition and avitaminosis which may accompany alcoholism. The early publication of Aalsmeer and Wenchebach¹ in 1929 dealing with oriental beri beri heart disease began a long series of such articles. In these the thiamin deficiency in the alcoholic patient was considered a primary causative agent in producing the high output type of heart failure seen in such patients; the myocardium suffers not only from a deficiency of vitamin B₁ and co-carboxylase but from an increased metabolic load of the body. Investigators in Europe and the United States, however, have frequently noted alcoholic patients in whom pellagra or peripheral neuritis were absent and in whom thiamin administration produced no great improvement in their cardiac failure.^{2,3} Evidence continues to accumulate that in countries with good dietary habits, well nourished and even obese individuals may acquire a distinct non-beri beri alcoholic myocardiopathy. The incidence is considerable but undetermined for several reasons. An admitted history of alcoholic ingestion is uncertain; the pathological changes of myocardial fiber degeneration (Illustration 1) and extensive

fibrosis (Illustration 2) are relatively non-specific and may be attributed to arteriosclerosis.

The wide range of alcoholic myocardiopathy, from hyperkinetic heart failure responding to thiamin to hypokinetic heart failure not responding to vitamins, has been reviewed by Bridgen.⁴ Since the process in its early phases can be arrested, prompt diagnosis is of great value. The clinical features have been well presented by Evans^{5,6} who emphasizes the rarity of the beri beri syndrome, the relative lack of signs of cirrhosis of the liver and other alcoholic stigmata, and lack of coronary arterial disease and of its pain seen in patients with alcoholic cardiac injury in the still reversible stage. An insidious, often unsuspected, progression is characteristic and there is a course of from two to five years from appearance of first symptoms. Auricular fibrillation of paroxysmal tachycardia and bundle branch block are common initially. The presence of extrasystoles in company with a moderate sinus tachycardia is especially suggestive of the deleterious effect of alcohol upon the heart. Breathlessness, often attributed to the accompanying obesity, may join the palpitations from the arrhythmia as the common symptoms. Removal of alcohol at this stage is rewarding, with clinical reversal and arrest of the process of myocardial fibrosis. Continued alcoholic ingestion may result in frank congestive heart failure, often predominately involving the left ventricle. The distressing signs of prominent venous pulse, cardiomegaly, gallop rhythm, functional systolic murmurs and basal rales appear. The electrocardiogram shows various degrees of damage to the ventricles, often bundle branch block, without evidence of abnormal Q waves. Reversion of these QRS and T wave abnormalities following abstinence has been noted by Evans.^{5,6} Radiology confirms the cardiomegaly and failure not unlike other myocardiopathies. Treatment at this stage of extensive myocardial

From the Cook County Hospital

While the Nutrition Committee of the Chicago Heart Association is sponsoring this article, the opinions expressed are those of the author and do not necessarily represent the official views of that committee.

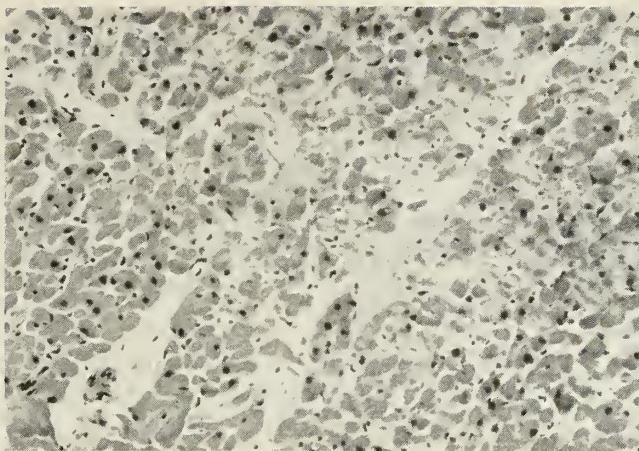


FIGURE 1. Left ventricular myocardial biopsy from a young alcoholic male. The transition from normal myocardium to an area of degeneration of myocardial fibers is illustrated.

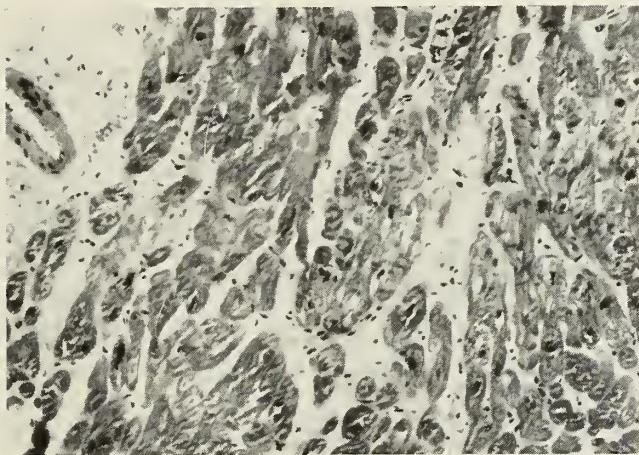


FIGURE 2. Left ventricular myocardial biopsy from a gravely ill middle aged alcoholic male. Degeneration of myocardial fibers, combined with interstitial fibrosis can be seen.

fibrosis is progressively disheartening in spite of digitalization, diuretics, sodium restriction and thiamin administration. The superposition of alcoholic cardiomyopathy upon pre-existing valvular or arteriosclerotic heart disease may be especially deleterious.

Evans has emphasized the need for early recognition of alcoholic cardiomyopathy and for vigorous questioning of suspects concerning alcoholic intake. The excellence of response to therapy in the early phase and lack of response once fibrosis has developed makes it very worthwhile to seek the only effective treat-

ment, complete and permanent abstinence.

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Rabies—the Lurking Killer

JULIUS M. KOWALSKI, M.D., Princeton



AS TEMPERATURE AND HUMIDITY soar with advancing summer, tempers shorten in man and beast. We seek elusive coolness, engage in minimal activity and desire to be left alone, as does our dog. The toddlers, possessing boundless energy, continue their incessant shouting and play unmindful of the oppressive heat. Eventually, they drift into the yard, eye Rover lying in the shade, and proceed to play with him as they always have — twisting his ears, pulling the tail and thumping him. Now comes the quick unexpected snarl, then nip. Bedlam is loose, a child was bitten by a dog! Expressions like "Rabies" and "mad dog" resound through the neighborhood.

Rabies has been a feared disease since ancient times and rightly so, for there are no proven cases of recovery in *untreated* humans. Treatment too little, too late, or none, spells death for rabid man. It is a malady of all warm-blooded animals involving the nervous system and the virus, often present in saliva of the afflicted, is invariably transmitted by a bite or lick.

A symptom of significant importance in the area of the bite is abnormal sensation. This is true of all wounds in varying degrees; however, the singular quality of a rabid infection in many cases is sensory. Pain is to be expected — dull, aching, stabbing, confined to the wound, or radiating — but the recurring tingling, paresthesia, sensations of heat and cold and itching are also predominant. Stimulation of the adjacent skin by drafts or the weight of bed clothes evoke distress from the patient, whereas these same stimuli, to a non-rabid wound, would hardly warrant a comment.

The behavior of a rabid dog follows a typical pattern readily identified by veterinarians and others familiar with animal traits, though the divergent signs appear to be unreconcilable to the untrained person. A dog's master, unfortunately, is apt to be a biased judge and dismiss as meaningless slight but significant behavioral

manifestations of the disease in his pet. In dogs and many other animals, the disease presents two types -- a furious (excitation phase), and the dumb (paralytic phase); often neither type is distinct, but sometimes both aspects of the disease are combined. In the early stages, the animal may become unusually apprehensive, restless, and given to aimless running; or, conversely, exhibit shyness, seek solitude and become increasingly apathetic. These persisting behavioral deviations in a known, trained animal warrant careful evaluation. In the excitation phase, a dog may bite without provocation, and although it is difficult to believe, it may have been unusually affectionate prior to the attack. As the disease progresses, the dog attacks viciously; he fears no animal or man. Sometimes a number of persons are victims of the same rabid animal who is driven to purposeless and distant wandering.

Paralysis of the lower jaw muscles develops and frequently excessive saliva drools from the open mouth; paralysis of the muscles which control swallowing and phonation follow and the animal is unable to eat or drink. The bark or growl loses its characteristic quality or cannot be produced at all. This explains in part the silent, unprovoked attack by rabid animals. Paralysis of the limbs ensues, the hind quarters showing instability first. Convulsions are not uncommon, then coma and finally death wraps up spent fury.

Some animals show signs of paralysis early (the dumb type of the disease) with little or none of the excitation phase. They seek seclusion, avoid food because of inability to swallow, and die from progressive paralysis.

Humans contract the disease from the saliva which contains the rabies virus and this inoculation may be from a lick on broken skin such as a cut or abrasion, or by a bite.

Hydrophobia, a synonym for this disease, occurs in humans in that stage of the illness when deglutition is extremely painful or impossible as a result of paralysis. Consequently, any attempt at eating or drinking, results in excruciating laryngeal spasm and the patient rejects all such offerings.

A healthy dog without previous rabies vaccination bitten by a rabid animal may develop

the disease in 10 days or several months later. The usual incubation period in dogs varies from 21 to 60 days after the attack. The amount of virus implanted in the wound and the severity of the laceration account for this attitude in the incubation of rabies. If a biting dog or other animal fails to develop signs of rabies as determined by a veterinarian or other competent observer within 10 days, the bitten person is relatively assured that the disease is unlikely to develop in him. In untreated humans, about 20% of the cases will develop the disease in 3 days or less, but in the majority of cases, the incubation period is from one to three months after exposure.

The necessity for keeping the suspect animal under a veterinarian's surveillance cannot be over-emphasized. All too frequently the animal is destroyed and then the opportunity to make the diagnosis is lost. The would-be benefactor of the community who has dispatched the suspect then becomes the arch enemy of all the persons who had contact with the animal.

The isolation of the virus from saliva, recording behavior, inoculation of laboratory animals and identification of Negri bodies in brain tissue and other tests is in the area of medical diagnosis. State Departments of Health and other designated agencies are equipped to render this diagnostic service. Physicians, veterinarians and other law enforcement agents are prepared to assist in the necessary steps leading to diagnosis.

Rabies is world-wide in distribution since dogs are constant companions of man on every continent and have traveled with him from pole to pole. The disease is perpetuated in stray animals. It has been found in all mammals, but particularly in foxes, coyotes, wolves, skunks, rabbits, squirrels, wild cats as well as domestic cats, all rodents and all domestic stock. The vampire bat was identified as a vector in the disease transmitted to domestic stock and man in Central and South America half a century ago. In the past decade insectivorous bats (those found during the summer in all the U.S. and Canada) have been found to be afflicted with rabies. This vector possesses an unusual threat in that the diagnostic Negri bodies are not found with regularity in rabid bats. Further, the disease can be harbored in them for long

intervals. In 50% of the reported cases of rabies in man due to bats, the attacks were unprovoked—the hallmark of the afflicted animal.

Currently, the skunk is the primary wild reservoir in the mid-west and in the eastern states, it is the fox. In southern California the recent increase in rabies has been attributed to stray dogs along the Mexican border.

In the past 10 years there has been a steady decrease in human rabies deaths throughout the country. In 1952 there were 24 such fatalities and in 1962 only 2 were reported in the nation. The same trend is noted in reported cases of animal rabies. In 1952 there were 8,500 such cases for all of the U.S., but in 1960, 1961 and 1962 about 3,500 were reported yearly.

In Illinois, the animal with the highest incidence of rabies is the skunk, this data being based on positive heads identified in the laboratories of the Illinois Department of Public Health. Excluding the bovine cases for the 3 year period 1960-1962, it is found that the cat ranks next to the skunk in the number of positive head examinations and the dog and fox cases are less. An interesting fact arises in the relationship of cat-skunk rabies since both species are night roammers.

Rabies is no respecter of seasons, being found during every month of the year, with most cases occurring in late winter and through spring and summer. There is no relationship between hydrophobia and the "dog days" of July and August, or the ascendency of the dog star, Sirius, in the summer sky. Recent studies of Illinois skunks disclose that the disease is most prevalent in this species during late winter and spring and that most of the infected animals then are females. The availability of food, population densities, poor physical condition after a severe winter, and the stress of pregnancy are factors responsible for rabies increase in skunks.

It is impossible to eradicate the disease in all wild animals and some large scale coyote poisoning programs in the past proved to be failures. But it is possible to protect our pet cats and dogs by vaccination. This protection, perhaps more than any one other factor, has been responsible for the sharp decline of rabies among animals and man. Other factors such as stray dog control, registration, and prohibiting indiscriminant roaming of pets without super-

vision, contribute to suppressing the disease. In countries where such strict enforcement is the rule, rabies is non-existent.

All animal bites demand medical attention since bacterial contaminants including tetanus are likely to be introduced into the wound and a deep wound of animal origin requires surgery. As a first aid measure until an attacked individual can be transported to a medical facility, the wounds or licks should be repeatedly washed with soap and water. The fact that in human wounds the virus multiples more slowly than in lower animals, except on the face, neck and head, medical attention can be sought even 24 hours after an attack. Further, the apprehended animal should be kept under observation for 10 days to determine if prodromal signs develop before anti-rabies treatment of the victim is attempted. Thorough washing of the wound should and can be done by any parent or other responsible person. Campers, hunters and fishermen who may be hours or days away from medical attention, if bitten by an animal or bat, must perform similar first aid. But the use of acids in wounds should not be attempted by any one except medical personnel.

Feeding squirrels, chipmunks, raccoons and other animals by hand in camping areas, forest preserves or parks is a hazardous practice. Should a bite occur from a seemingly tame but free animal, a serious problem develops. It is almost impossible to identify the offending animal from others of his species and it is difficult to live trap the offender. The only recourse in such an instance is to obtain anti-rabies vaccination treatment immediately.

A post-exposure treatment outline with anti-rabies vaccine has been prepared by the Expert Committee on Rabies of the World Health Organization. The indications for specific post-exposure treatment vary considerably and reference to the tables is necessary when evaluating a specific lesion. Copies of this outline are available from local and State Departments of Health.

For persons exposed to a rabies endemic area, the best preventive measure is to obtain protective vaccination. A high risk group includes veterinarians, Public Health personnel, wildlife workers, and kennel men.

Workshop Tells How You Can Help

THAT THE MEDICAL PROFESSION of this nation is deeply concerned with assaults on our republican form of government was clearly displayed to participants in the AMPAC National Workshop. The program, held in Chicago in May, was highly effective and soundly organized. Representatives from nearly every state were present.

Basic to the program were the dissemination of practical, political educational material and information for enlarging and strengthening PAC groups. The following report discusses that program's application to IMPAC.

Richard G. Layton, field representative of AMPAC, discussing characteristics of the "ideal" political action committee, stated that "the first consideration of the 'ideal' PAC is that it has the blessing of the state medical profession." The very close relationship between IMPAC and the Illinois State Medical Society leads us to underscore this consideration. Without the "blessing" of the ISMS, IMPAC could not have long existed.

Mr. Layton also stressed a characteristic which is one of the greatest strengths and most desired goals of IMPAC, when he said that PAC organizations should extend to the grass roots areas of the state. It is the individual interest, activity and support of our members in every section of Illinois upon which we must build our organization. The combined strength which arose from these individual contributions in 1962 has resulted in making IMPAC a significant and recognized political force in Illinois. Further development at the grass roots level will add to this stature.

Dr. Ernest B. Howard, Assistant Executive Vice President of the American Medical Association, spoke about "winning with women." He demonstrated the importance of participa-

tion by women in the work of political action committees by stating two facts: "1. In 1964, women voters will outnumber men voters by more than four million. 2. Virtually every successful candidate to elective office ascribes a major share of his success to the campaign efforts of women." Dr. Howard urged every physician's wife to join her state political action committee and AMPAC, to keep up to date on current political situations, and to participate actively in the party of her choice and in support of her candidate.

IMPAC needs the strength which can be provided within our organization through the support of the women of Illinois. We urge every physician to encourage his wife to participate in IMPAC and AMPAC.

Mrs. Lee Ann Elliott, assistant director of AMPAC, spoke in terms of preparation for the coming elections, stressing candidate selection.

Review of incumbents, their political philosophies and voting records, is the first step. The next responsibility is determination of "marginal districts," those in which either candidate has a good chance of winning. Numerically speaking, a district is generally considered marginal if an additional five per cent or less of the total voters, casting their ballots for the losing candidate, would have given him a majority.

In 1962, there were seven marginal districts. We anticipate that five of these will remain marginal to the same degree, and that two have become less marginal, but will remain difficult races. AMPAC considers that on a national scale there are 77 marginal districts, 40 with Democratic incumbents and 37 with Republican incumbents.

Mrs. Elliott also stated that political preparation should include an awareness of the

plans of other groups. For example, will labor interests, business organizations, liberal or conservative elements within the two major parties develop their own programs and/or candidates? Some of these plans are made on a national level, some on a local level. It is our job to be aware of all of these plans and to know how they might effect the races in Illinois.

Mrs. Elliott also pointed out that there are some districts, not considered marginal in the usual sense, which will become "target areas." Often these receive considerable attention from the press. "Unexpected situations," she said, "concerning both the candidates and the constituents, will turn some districts into free-for-alls, and certainly, place them on target lists."

Basic research into voting statistics, voting interests within districts, party strengths and weaknesses in districts that need special attention, is essential if political action is to be effective.

The AMPAC National Workshop was extremely successful in terms both of participation in the two-day schedule of events and in the reception accorded it by those who attended. Every speaker contributed substantially to a comprehensive program. Featured

speakers were excellent. These included James F. Murray, Jr., attorney, consultant, author and lecturer; David S. Teeple, Secretary and Staff Director of the U.S. Senate Republican Party Committee; and Robert L. Humphrey, Director of Public Affairs for the National Association of Manufacturers.

IMPAC was honored by having two of its members on the Speakers' Roster: Chairman, John A. Newkirk, M.D., discussed PAC activities between elections; and Robert L. Richards, ISMS Executive Administrator and IMPAC member, discussed "Relationship and Responsibilities."

It is essential that IMPAC members take advantage of their organization and its resources in 1963 to be prepared for effective participation in 1964. While it is equally essential that membership be renewed and expanded in 1963, grass roots activity is the key to the success of IMPAC.

If you would like to organize a political workshop or to have the IMPAC staff provide one in your district, or if you would like to aid in a membership campaign, or assume some responsibility for voter research, contact the IMPAC office, at 343 S. Dearborn St., in Chicago, or a member of the IMPAC Executive Committee.

* * *

The following members of the IMPAC Executive Committee were elected at our 1963 Annual Meeting:

President:

John A. Newkirk, M.D., Elgin

Vice Chairmen:

Andrew J. Brislen, M.D., Chicago

Richard L. Verbic, D.D.S., Elgin

Secretary-Treasurer:

A. E. Steer, M.D., Springfield

Committee members:

J. Ernest Breed, M.D., Chicago

Newton Du Puy, M.D., Quincy

Mrs. Fred C. Endres, Peoria

Justin Fleischmann, M.D., Palatine

Frank H. Fowler, M.D., Chicago

H. Close Hesseltine, M.D., Chicago

Maurice M. Hoeltgen, M.D., Chicago

John W. Ovitz, Jr., M.D., Sycamore

Ralph N. Redmond, M.D., Sterling

Jacob Reisch, M.D., Springfield

James Rogers, M.D., Joliet

Mrs. Wendell Roller, Monmouth

V. P. Siegel, M.D., East St. Louis

Andrew J. Sullivan, M.D., Chicago

E. W. Telford, M.D., DeKalb

Philip G. Thomsen, M.D., Dolton

Willing the Body to Medicine—Part 2

The life-saving and sensory-restoring potential of living tissue and whole organ transplants only recently has been realized. Coincidental to this new interest has been the development of tissue and organ banks which preserve donated specimens and determine their compatibility with the recipient.

This Reference Page lists and describes a number of these banks as a convenient index of availability for the Illinois physician.

The list is far from complete, a fact that hopefully will stimulate Illinois physicians and their colleagues to submit additional listings to the Illinois Medical Journal as they accumulate them. These listings will be published in a future issue. They should be sent to:

Research Librarian
Illinois Medical Journal
360 N. Michigan Ave.
Chicago 1, Illinois

Although several new pathology registries are listed here because of their uniqueness, listings submitted to IMJ should be confined to banks preserving viable tissue or organs for transplant surgery only. A comprehensive list of pathology registries appeared in the August, 1961 issue of the Illinois Medical Journal and is available on request.

EYE BANKS

Illinois Eye Bank
20 West Jackson Street
Chicago 4, Illinois
Phone: WAbash 2-8710

Operated by the Illinois Society for the Prevention of Blindness.

Gailey Eye Clinic
Bloomington, Illinois

Presbyterian Medical Center Eye Bank
2018 Webster Street
San Francisco 15, California
Phone: WEst 1-8000, Ext. 297

Established in 1947, this public service organization collects and stores the corneas for transplant surgery and makes them available at no cost to the patient or surgeon. Donor forms are available by writing the Center or calling.

Medico, Incorporated
International Eye Bank
Washington Hospital Center
Washington, D. C.
Director: Dr. John Harry King

Founded by the late Thomas Dooley, M.D., Medico Inc. established an international eye

bank in February of 1961 to serve as a clearing house for corneal transplants throughout the world. To date 14 nations have been supplied with preserved corneas by the bank. Development of corneal preservation by vacuum dehydration in glycerin by Director Dr. John Harry King has made it possible to do successful grafting weeks or months after removal of corneal tissue.

BONE MARROW BANKS

University of California Medical Center
Department of Medicine
Los Angeles, California

and

Veterans Administration Hospital
Long Beach, California

Bone marrow is stored here by freezing under controlled conditions in glycerol-tissue culture medium from patients who are to undergo extended radio or chemotherapy for malignant diseases. This permits re-implantation of the viable bone marrow if severe bone marrow depression results from the therapy. To date more than 80 bone marrow samples have been stored and implants have been performed in 21 patients with several varieties of carcinoma including Hodgkin's Disease and leukemia.

Results have indicated that the marrow can be collected, stored, and implanted without problems of tissue rejection or secondary disease. For further information contact N. B. Kurnick, M.D., F.A.C.P., at the Veterans Administration Hospital, Long Beach, California.

BONE BANKS

The common indications for bone banks today are: 1) to eliminate cavities or defects in bone due to cysts, tumors, etc.; 2) for fusion of joints (arthrodesis); 3) to establish continuity of long bone where a major defect exists; 4) for bone blocks to limit joint motion (arthrosis); 5) for repair of pseudoarthrosis (false joints); and 6) to assist in repair of fresh fractures, or complications of fractures (delayed, union, malunion).

The most commonly used bone banks in current use are: 1) the frozen bone bank; 2) the freeze-dried bone bank; and 3) the merthiolate-preserved bone bank. All employ homogenous bone (derived from a different member of the same species as the recipient).

Frozen bone banks are located at:

New York Orthopedic Hospital
New York, New York

and the

Hospital for Special Surgery
New York, New York

A merthiolate bone bank is located at:

Washington University Medical Center
St. Louis, Missouri

(Although the following are pathologic registries, they are mentioned here because of their uniqueness and because research carried on there may one day lead to the use of these parts in transplant surgery.)

MUSCLE REGISTRY

Presbyterian St. Luke's Hospital
1753 West Congress
Chicago, Illinois
Phone: SE 8-4411

This is the first muscle registry in the country—a collection of diseased muscle tissue for teaching purposes.

TEMPORAL BONE BANKS

The Deafness Research Foundation
310 Lexington Avenue
New York 16, New York

Temporal Bone Banks Center
P.O. Box 146—Faculty Exchange
University of Chicago
Chicago 37, Illinois
Director: John R. Lindsay, M.D.
Phone: Midway 3-0800, Ext. 2351

The Temporal Bone Banks Center in Chicago is the coordinating facility for a nationwide chain of 22 ear banks, established to determine the underlying causes of deafness and development of methods of prevention and cure. Appeal is made to all persons afflicted with deafness and vertigo to will their temporal bones to the Center for study. Bequeathal forms and wallet-sized identification cards for this purpose are available by contacting Katherine Wolcott at the Center.

MISCELLANEOUS

Ovarian Tumor Registry
1833 E. Monument St.
Baltimore 5, Md.
Director: Dr. Richard W. TeLinde

Operates as a gratis diagnostic service to any pathologist confronted by an unfamiliar or perplexing tumor of the ovary, which he is invited to send to the registry.

The Albert Mathieu Chorioepithelioma Registry
303 East Chicago Avenue
Chicago 11, Illinois
Director: Dr. John I. Brewer

Makes available a registry for clinical and pathologic material used in the study of trophoblastic diseases. The low incidence of these diseases makes it difficult for the individual physician to collect sufficient data or material for study, hence, the practical value of this registry.

Brain Pathology Registry
Neuropathology Laboratory of Montefiore Hospital
New York, New York

Registry of Demyelination Disease
Montefiore Hospital
New York, New York

Mushroom Death Registry
22 The Fairway
Boston 15, Mass.

Retina Foundation
30 Chambers Street
Boston 14, Massachusetts

Affiliated with Harvard University, the Foundation studies a variety of retinal diseases and is not restricted to study of detached retina.

The View Box

LEON LOVE, M.D., Chicago



FIGURE 1



FIGURE 2

This 60-year-old Negro female entered the hospital with a history of marked weakness, bone pain, and shortness of breath.

Physical findings revealed a chronically ill, emaciated patient. Blood pressure was 150/100. The heart was slightly enlarged. The lungs were clear. Tenderness was elicited on palpation of the bones. A nodule was palpated on the right side of the thyroid.

What is your diagnosis?

- 1) Multiple myeloma
- 2) Hyperparathyroidism
- 3) Osteolytic metastases
- 4) Osteomalacia

From the Cook County Hospital

(continued on page 62)



FIRST STEP in producing a "burn" is the reddening of the skin with rouge.



FIRST STEP in producing a "burn" is the reddening of the skin with rouge.

Medical Makeup Magician

Most doctors expend their efforts to treat wounds and burns—but Dr. Max Klinghoffer of Elmhurst "creates" these casualties. As chairman of the ISMS Committee on Disaster Medical Care, Dr. Klinghoffer has become a master of applying makeup and collages to simulate the results of disaster on his "patients". These victims are then used by the doctor to teach the fundamentals of Medical Self Help to laymen and disaster medical care techniques to physicians all over the country. Dr. Klinghoffer, who became interested in artificial wound artistry while teaching casualty care in the Army in 1942, is an advisor to the U.S. Surgeon General on Disaster Medical Care. He has recently completed a series of appearances on the Lynn Walker TV show, where these pictures were taken, using ISMS staff members as his victims. "Through these TV appearances" commented Dr. Klinghoffer, "we hope to



MOULAGE is applied to the extremity with the "bone" protruding through the "skin."



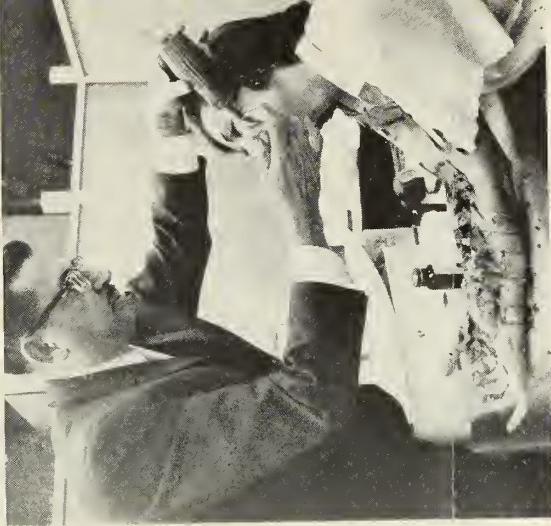
SMALL WOUNDS of the face can be simulated with skin pencil or lipstick.



reach people with a message on emergency care and survival. We want to stimulate their interest in going further with this type of training. I also hope that in a small way this type of program illustrates the fact that all of organized medicine is working toward the goal of better medical care in all areas."

FINE CHARCOAL is applied to simulate charring of a 3rd degree burn.

CLOTHING must also be "charred" and torn to give an air of realism. In the left background is the kit of wound moulages.



"BLOOD" (which is a mixture of liquid starch and red vegetable dye) adds a final touch of realism.



THE CASUALTY (Miss Gaylen Lair of the ISMS staff) is now before the television camera, with an emergency splint applied to the "fractured" arm.



IN PRODUCING a "compound fracture", rubber cement is first applied to the extremity and to the plastic moulage.



The View Box

— diagnosis and discussion

(continued from page 59)

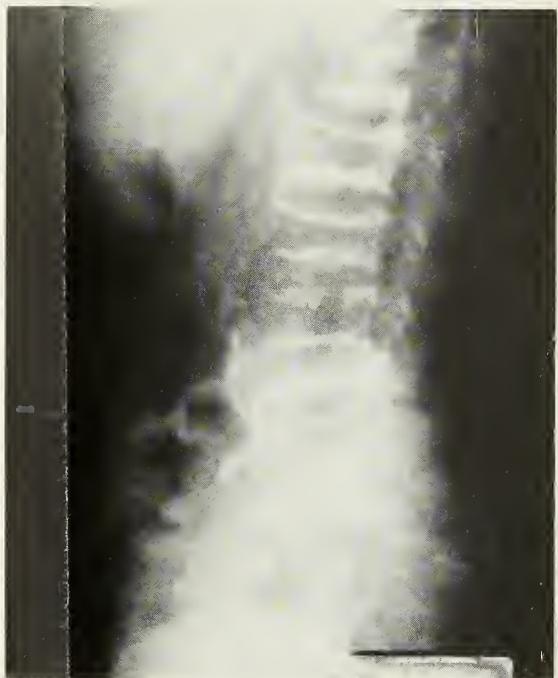


FIGURE 3

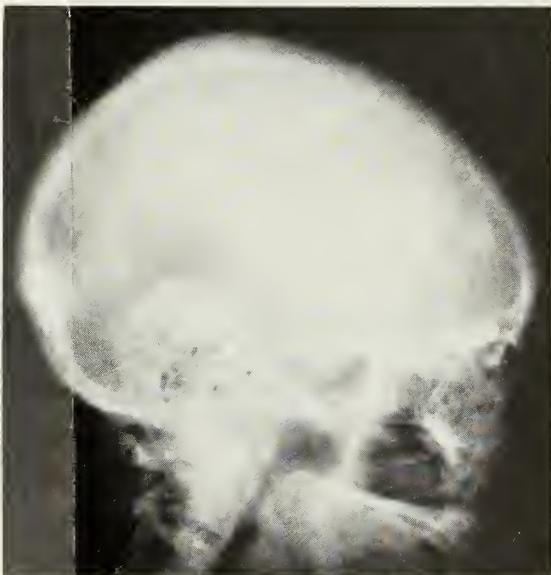


FIGURE 4

Diagnosis: Hyperparathyroidism

Chemistries on this patient were Calcium 13.9, Phosphorus 2.4, Alkaline-Phosphatase 45 Bodansky units, N.P.N. 80.

A large adenoma of the upper right parathyroid gland was found at surgery. A thyroid nodule was also identified. The incidence of associated thyroid nodule is as high as 25%.

In a classic case of hyperparathyroidism roentgenograms show erosion of the cortical surfaces of bones, demineralization of bones, localized destructive lesions and calcification of the soft tissues.

Our case shows cortical erosion characteristically in the middle phalanges and extensive destruction of the terminal tufts of all the fingers (Fig. 1). Fig. 2 shows evidence of cortical erosions in both femoral necks and in the inferior pubic rami and ischium bilaterally. There is extensive demineralization of the pelvis, femora and lumbar spine (Fig. 2 and Fig. 3). Such typical subperiosteal resorption occurs in no other disease except secondary hyperparathyroidism. The skull shows areas of diminished density alternating with areas of normal density (Fig. 4). Our patient was edentulous. If teeth are present the lamina dura may be absent (cortical bone lining the tooth socket). Our patient showed no evidence of local punched out osteolytic lesions.

The degree of bone involvement correlates well with the alkaline-phosphatase level.

Other lesions to watch for are renal stones, and nephrocalcinosis, as well as a high incidence of peptic ulcer.

REFERENCES

- Steinbach, H. L., Gordon, G. S., Eisenberg, E., Crane, J. T., Silverman, S. and Goldman, L.: *Primary Hyperparathyroidism: A Correlation of Roentgen, Clinical and Pathologic Features*. American Journal of Roentgenology, 86:329-343, August 1961.

'63 annual convention / CLINICAL ABSTRACTS

SURGERY

Current Concepts in the Surgical Management of the Peptic Ulcer. Richard De Wall, M.D., Professor & Chairman of the Department of Surgery, Chicago Medical School.

Between seven and ten percent of our population will be afflicted with a duodenal peptic ulcer within their lifetime. About 375,000 persons consult physicians each month because of disorders arising from this disease. The morbidity and mortality represented is self evident.

The initial onset of the disease is best treated with the current efforts of bland diet and anticholinergic drugs. Efforts to treat the emotional aspects supposedly a part of this disease may have theoretical merit but would not seem to have appreciably reduced the morbidity of the disease. A great many patients develop a chronic problem and become chained to intolerable diets in addition to various medications in order to achieve some ability to face life. Many of these patients develop intractable ulcers, or more properly, it should be stated that the ulcers develop in intractable patients. They do not have the fortitude to stay on such medical management that is indicate.

This brings us to the ten percent of patients with duodenal ulcers who become candidates for surgery. Major resectional surgery for duodenal ulcers carries with it an operative mortality of about two percent. The incidence of post gastrectomy malnutrition is reported to be from forty to fifty percent. The dumping syndrome following a major gastrectomy is probably severe in six percent. Recurrent ulceration is also a problem in a small percentage of these patients. Because of this, interest has turned to less radical surgical procedures.

The hemigastrectomy and vagotomy is currently an operation which appears to have much to recommend it as far as controlling the disease. It carries with it, however, the two percent operative mortality. It should be remembered that the patient who presents himself for surgery because of intractable ulcers would probably carry a high operative mortality risk without surgery because of hemorrhage, perforation, and obstruction.

Truncal vagotomy and pyloroplasty would seem to have a great deal to recommend it as an operative procedure of choice for duodenal ulcers as this controls the disease in ninety percent of the patients and carries an operative risk of probably less than 0.2 percent. The preceding statement is reinforced by the recent availability of the gastric freezing procedure for control of the duodenal ulcer diathesis.

Wangensteen and his group from the University of Minnesota introduced gastric freezing as a treatment of the duodenal ulcer diathesis. With this technique, a balloon is introduced into patient's stomach and is inflated with alcohol to fill the patient's stomach. The alcohol is then recirculated through a refrigeration machine and the alcohol cooled to about minus twenty degrees.

Data concerning the first seventy-five patients whose stomachs were frozen as treatment of the duodenal ulcer diathesis at the Mount Sinai Hospital in Chicago will be presented.

The average duration of the disease in these patients was ten years. Twenty-nine of these patients had active duodenal ulceration demonstrated by x-rays prior to the freeze. The remaining patients had demonstrable duodenal deformity of a long standing disease and persistent pains.

Two months after the freeze forty percent were completely relieved of their symptoms and taking a normal diet. Forty-two percent were much relieved, having only a rare epigastric pain and eating a diet with only minimal restrictions. Seven percent felt they were better after the freeze but still maintained a bland diet and had occasional pains. Four percent did not experience any change in their symptoms and five percent thought that they were worse.

Of the total group of seventy-five patients, fifteen had their stomachs refrozen to give them more complete relief. It was successful in twelve of these fifteen.

Of this total group of patients, two developed gastric ulcers which are healing under conservative management. One of them had hemoptysis about four days after the freezing and required blood transfusions. Three additional patients required hospitalization because of severe pains, the exact cause of which was undetermined.

Three of these patients ultimately were operated upon, two because of outlet obstruction and were probably not properly selected patients for the gastric freeze. One additional patient was operated upon shortly after returning to his home because of persistent ulcer pains. Other patients in the total group also had severe ulcer pains, however, they were not subjected to surgery and ultimately achieved a satisfactory result.

Gastric secretory studies were done on all patients, before and after the freeze. Most of them exhibited a hyperchlorhydria as is characteristic of these patients. A large percentage became achlorhydric on the overnight aspiration immediately after the freeze, and the total volume is appreciably less. They also tend to be achlorhydric in the free, unstimulated gastric aspirations. The gastric acidity tends to return to normal levels by the time of the two month follow-up, however, they usually still retain relief from their symptoms. It

seems, however, that their total volume of secretion is probably reduced.

It would appear that the use of the gastric freezing procedure will have a definite place in the treatment of the duodenal ulcer diathesis problem.

ALLERGY

Allergic Contact Dermatitis. Samuel M. Feinberg, M.D., Professor of Medicine and Director, Allergy Research Unit, Northwestern University.

The causes of allergic contact dermatitis are numerous and they can be best classified into a number of groups, among the most important of which are plants, synthetic and natural resins, dyes, local anesthetics, plastics, metals and their alloys and salts, and many other synthetic chemical substances. Among the important plant sources are poison ivy, the pollen and leaf of ragweed, tulip and other bulbs. In Europe, the wild primrose is the major plant source. Among plastics are the ones used in toys. A young child who had severe dermatitis of the hands for several weeks after the last two Christmas holidays had her trouble traced to the new plastic toys she received as gifts. Mercury compounds such as used in topical antiseptics or in injectable materials, can cause dermatitis. For example, following the treatment of a slight burn of the face with an ointment marketed for burns, a severe acute eczematous dermatitis of the face resulted, which was traced to Merthiolate in the ointment. The resins in adhesive tape and nail polish commonly cause dermatitis. The nail polish allergy usually affects the eyelids by contact with the fingers. Sometimes such cases are puzzling to diagnose. For example, a woman who had an eyelid dermatitis, who did not use nail polish because of this, had a mysterious recurrence of her complaint until it was traced to the use of a typewriter commonly used also by other personnel in the office. Some casts have resins as their base and have been known to cause dermatitis both in the patient and the surgeon. Local anesthetics are notorious for their tendency to produce contact allergy and occur in physicians, nurses, as well as in patients. Such drugs may be used in eye drops, ointments, suppositories, and for injection. A substance which is capable of causing contact dermatitis can produce marked swelling of tissues when injected, such as in their use in dental work.

Penicillin handled or used topically, nickel in costume jewelry, dyes used in furs, leather and clothing, dermatitis of the hands or under a ring from detergent, and a host of other substances can be responsible for this type of dermatitis. It should be remembered that true allergic contact dermatitis is a delayed reaction—it does not begin for several hours or a day or so after contact. Similarly, when making a patch test—the application of the raw material or a purified prepara-

tion of it on the intact skin covered by a piece of gauze and adhesive—the diagnostic reaction is delayed also.

Contact dermatitis can be prevented by knowing the cause, by washing hands (and other skin areas) with soap and water as soon as contact is suspected, and occasionally by the use of protective coverings, such as silicon cream. It is treated as any other inflammation, by wet dressings in the eczematous stage, steroid ointments in the drier phase of the inflammation, and by steroids orally in the very severe and generalized forms.

Autoimmunity—Human Diseases and Animal Experiments. Felix Milgrom, M.D., Associate Professor of Bacteriology and Immunology, State University of New York at Buffalo.

Hetero-, iso- and autoantibodies should be defined on the basis of the origin of antigens with which these antibodies combine rather than the origin of antigens responsible for their stimulation. Accordingly, the formation of autoantibodies may result from hetero-, iso- and autostimulation.

The Wassermann antigen and organ specific antigens of lens, brain and thyroid relatively easily stimulate autoantibody formation if they are presented to the animal in a proper immunization procedure. On the other hand, morphological blood elements and some species specific antigens never elicit autoantibody formation in an experimental animal. Some recent experiments indicate that the first group of antigens are localized inside the cell whereas the second group are localized on the cell surface. In discussing the basic difference between these two groups of antigens, classical rules of *horror autotoxicus* (Ehrlich and Morgenroth) and of constitutional serology (Hirschfeld) as well as the more modern concept of self recognition (Burnet and Fenner) will be considered.

In contrast to native autoantigens which only exceptionally stimulate antibody formation, the altered autoantigens may easily stimulate the formation of antibodies. However, these latter antibodies should not be given the name of autoantibodies.

The pathogenic role of humoral and cell bound antibodies was extensively studied in connection with the three best known experimental autoimmune diseases, encephalomyelitis, aspermato genesis and thyroiditis, without bringing decisive evidence for the primary importance of either of these antibody types.

Several human diseases are accompanied by the formation of humoral autoantibodies. The autoimmune character of some of them is plausible though not yet proven definitely. Our present knowledge about the serology of hemolytic anemia, systemic lupus erythematosus, rheumatoid arthritis and chronic thyroiditis will be summarized and arguments will be discussed that support and contradict the immunological character of these diseases.



DISTURBANCES OF HEART RATE, RHYTHM AND CONDUCTION. Eliot Corday, M.D. and David W. Irving, M.D. \$8.50. Pp. 357. Philadelphia, W. B. Saunders Company, 1961.

Remembering their difficulty, as students, in comprehending the mechanisms of and differentiating the various abnormalities of the heart rate, rhythm and conduction, the authors attempt to present in as simple a manner as possible the underlying pathophysiology and clinical characteristics of each disturbance. In the opinion of this reviewer the authors have successfully accomplished their stated purpose. The latest hemodynamic principles are clearly set forth and applied. Many illustrative electrocardiograms and easily grasped diagrams correlating mechanical and electrical phenomena in the heart are aptly employed.

Electrocardiography per se is not the major concern of this book. Nevertheless, sufficient explanatory and correlative data are employed. Of particular interest is the authors' rejection of Lewis' circus movement theory as an explanation of the mechanism for atrial fibrillation and flutter. They hold the unifocal theory of Rothberger to be more understandable and acceptable. The reader will note the absence of the symbol F for flutter waves.

A quality most singularly commendable is the emphasis on clinical aspects, encompassing

hemodynamic principles, etiology, symptoms, physical findings, prognosis and treatment. A chapter detailing the bedside diagnosis of the arrhythmias and conduction defects is especially noteworthy. Chapters dealing with these abnormalities when associated with myocardial infarction, electrolyte changes and emotional states occurring during surgery and anesthesia are clearly and concisely presented. Sections of the book describing disturbances contain therapeutic recommendations for each. A final chapter is concerned with the pharmacologic action of the drugs employed.

Although the reader is aware of much repetition, this quality adds to the pedagogic effect. Medical students and clinicians will find this volume of value in understanding and treating the disturbances of the heart rate, rhythm and conduction.

Jacob S. Golden, M.D.

TEXTBOOK OF ENDOCRINOLOGY. Edited by Robert H. Williams, M.D. \$21.50. Pp. 1,204. Philadelphia, W. B. Saunders Company, 1962.

This third edition is made up of contributions from twenty-one authorities and has 22 chapters. Sections in this edition not present in the second are as follows: hormones and cancer; lipid metabolism and lipopathies; summarization

of the effects of hormones on protein metabolism; summarization of the effects of hormones on water and electrolyte metabolism; genetics and endocrinology; disorders in sex differentiation; the pineal, hypoglycemia and hypoglycemoses. Obesity is well presented but does not rate a separate chapter as it did in the second edition. This edition appears to be well indexed. One suspects that this larger book indicates an increasing awareness of the importance of endocrine disorders.

The quality of the chapters is not uniform but varies with the different authors. Some are extremely well done. The chapter on the parathyroids wastes a lot of space reciting unproved theories or setting down what is little more than speculation on the part of the author, interesting no doubt to him, but expensive to the purchaser of the book. The chapter occupies 150 pages. On the other hand, the pituitary chapter occupies only 83 pages. Once known as the leader of the endocrine orchestra, the pituitary appears to have lost its place as a leader since the discovery that the body appears to get along without it when given about 15 mgs. of cortisol and 1 or 2 grs. of thyroid daily. The chapter is very well done.

It is unfortunate that the author did not discuss the prevention of gigantism in girls by irradiation of the pituitary. This is a perfectly safe procedure that has been used in some places for the last three decades or more with no sign of damage to any structure at any time. There is in a few cases slight temporary loss of hair. The patient's general health improves, and menstrual periods tend to become regular. Patients become less irritable and their emotional stability is increased. Girls who reach the statuesque height of 5' 10" to 6' are greatly handicapped by this excessive growth, which sometimes becomes the hub of their universe. Irradiating the pituitary before these heights are attained is a safe procedure which should be much more widely used than it is.

Dr. Forsham devotes 112 pages to the adrenals. Physicians who have and whose patients have unlimited time and means at their disposal will find nothing in this chapter to differ with. But the hurried doctor in private practice,

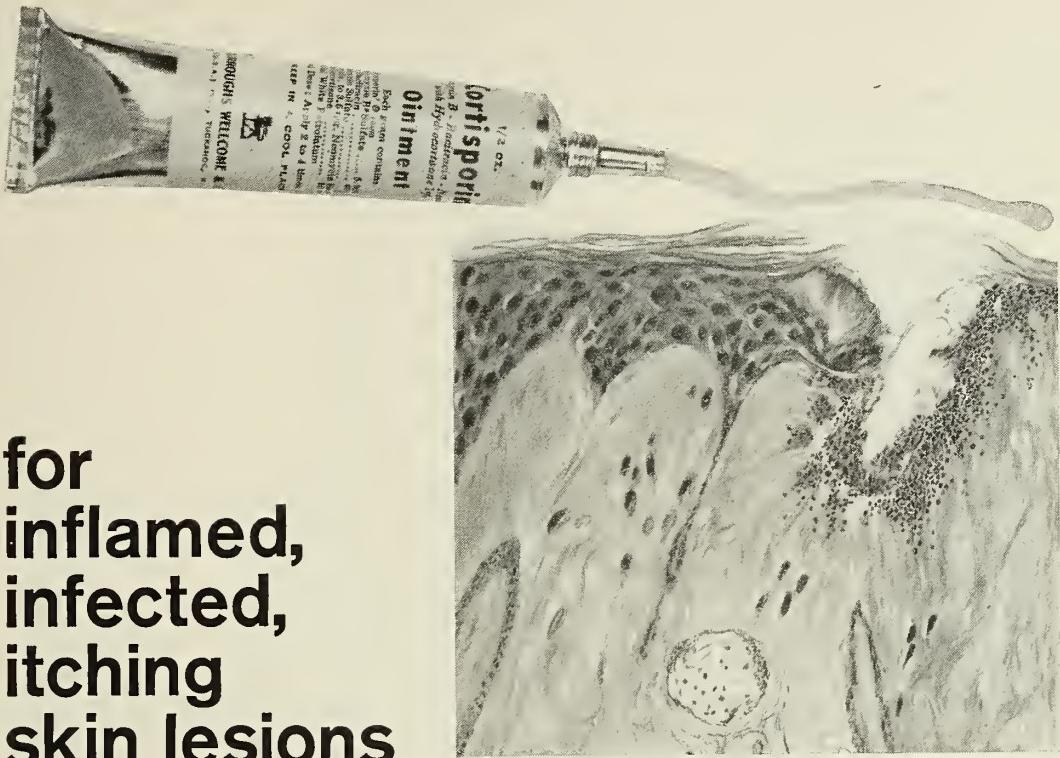
taking care of harried patients, may wish to lean less heavily on the laboratory. For example. Dr. Forsham says on page 325, "The diagnosis of chronic adrenal insufficiency should be suspected in all hypotensive patients complaining of easy fatigability, weight loss, and gastrointestinal disturbances, especially with evidence of progressive pigmentation." On the same page he warns against beginning treatment before the diagnosis is established by the laboratory. But would not the busy practitioner serve his patients better if when he suspected it he gave the patient appropriate therapy without waiting for the destructive or degenerative process to reach the stage where the laboratory could make a diagnosis? In private life the exigencies of the situation will often demand such a procedure, no matter how unscientific it may be. Too often the laboratory recognizes disease only when it is severe or far advanced.

PROCEDURES IN VASCULAR SURGERY. Richard Warren, M.D. \$12. Pp. 211. Boston, Little, Brown and Company, 1960.

This excellent atlas of vascular operations includes procedures performed today on the extracardiac vessels. Excluded are operations for portal hypertension and lymphedema. No originality is claimed for any of the operations depicted, and no claim is made for the superiority of one procedure over another, except that the procedures illustrated are preferred by the author. In addition to various arterial reconstructive procedures the atlas has sections in arteriography, management of venous lesions, sympathectomy, amputations, and prostheses.

The pen-and-ink drawings are lucid and clear, and can be easily understood by surgeons. The book will be useful not only to surgeons interested in obtaining authoritative information on the operative management of vascular diseases, but should find use as a handy reference guide for all physicians who wish to acquaint themselves with modern vascular operative techniques.

Harold Laufman, M.D.



for inflamed, infected, itching skin lesions

anti-inflammatory / bactericidal / antipruritic

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NEOMYCIN WITH HYDROCORTISONE 1%
OINTMENT

Each gram contains:

'Aerosporin'[®] brand Polymyxin B* Sulfate 5,000 Units; Zinc Bacitracin 400 Units; Neomycin Sulfate 5 mg.; Hydrocortisone 10 mg. (1%).

- relieves pain and itching
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- provides bactericidal action against most gram-positive and gram-negative organisms, including *Pseudomonas aeruginosa*
- rarely sensitizes

General Indications: Wherever inflammation or infection occurs and is accessible for topical therapy, as in burns, wounds, skin grafts; and plastic proctologic, gynecologic, or general surgical procedures.

Dermatologic Indications: Atopic, contact, stasis, infectious eczematoid, and lichenoid dermatitis; neurodermatitis, eczema, pyoderma; anogenital pruritus; primary dermatoses with or without secondary infection; external otitis.

Caution: As with other antibiotic products, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

Contraindications: Local application is contraindicated in tuberculous conditions of the skin, herpes simplex, vaccinia and varicella.

Available: In tubes of $\frac{1}{2}$ oz. with applicator tip and $\frac{1}{8}$ oz. with ophthalmic tip. Although the $\frac{1}{8}$ oz. tube is intended for ophthalmic use, it may be used topically.

Complete literature available on request from Professional Services Dept. P.M.L.

*U.S. PAT. NOS. 2,566,057 AND 2,695,261



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.



Editorials

New Group Disability Plan Offers Important Benefits to ISMS Members

Recently three mailings have been sent to all members explaining the Group Disability Plan approved by our Board which is underwritten by the Commercial Insurance Company and administered by Parker, Aleshire & Company.

A VERY IMPORTANT SPECIAL OPEN ENROLLMENT IS NOW BEING CONDUCTED UNDER WHICH ALL MEMBERS OF THE ILLINOIS STATE MEDICAL SOCIETY UNDER AGE 70 ARE ELIGIBLE TO OBTAIN THIS LOSS OF INCOME PROTECTION UP TO \$75.00 PER WEEK UNDER PLAN I REGARDLESS OF ANY PRESENT OR PAST MEDICAL HISTORIES SO LONG AS SUCH DOCTOR IS A MEMBER OF THE SOCIETY AND IS ACTIVE IN THE PROFESSION.

The three available plans are as follows:

Plan I —Lifetime Accident and one year non-confining Sickness

Plan II —Lifetime Accident and seven year non-confining Sickness

Plan III—Lifetime Accident and Sickness benefits payable to Age 65 or to Age 72 should the disability occur after age 58.

Under Plans I and II the Accident benefits begin with the first day of disability and the Sickness benefits begin with the 8th day of disability or from the first day of hospital confinement, whichever shall occur first. Under Plan III, both the Accident and Sickness benefits begin with the 31st day of disability.

Other special features of the program are the higher maximum benefits available subject to certain age limitations including weekly

benefit up to \$250.00 or based on a monthly figure of \$1,083.33. The program also includes an automatic conversion to a senior plan which is offered to all active insured members at the time they reach age 70.

This is a true Group Insurance Program controlled by the Society. The Company declined to renew the individual's coverage only when the entire plan is terminated, if the doctor ceases to be a member of the Society or ceases to be actively engaged in the profession, or when he reaches age 70 at which time, of course, the conversion senior plan will automatically be made available.

The Insurance Committee conducted an extended study of various plans before recommending this program to the Board of Trustees. The Commercial Insurance Company pioneered in the field of Association Group Insurance and is the Company that underwrote the program under which many members of the State Society have been participating since 1947. Parker, Aleshire & Company, the administrators, was established in 1901 and administers similar programs for various other Professional Associations in Illinois, such as the Illinois State Dental Society, the Illinois State Bar Association, the Chicago Bar Association, the Illinois Society of Certified Public Accountants, etc.

Your Society has negotiated this coverage as a membership service. We believe that the program which has been developed provides an opportunity for coverage which cannot be obtained on an individual basis. Those physicians desiring coverage should give consideration to the special advantages offered during the special enrollment period which is now under way.

ARAMINE
may make the
difference between
death and survival...
because you can
treat shock
on the scene

in traumatic shock: ARAMINE® metaraminol bitartrate buys essential time when shock follows brain damage or severe hemorrhage. In grave emergencies, direct intravenous injection brings immediate pressor response, improves renal plasma flow, cerebral and coronary blood flow...with little chance of tissue irritation or necrosis.

in cardiogenic shock: ARAMINE has a smooth predictable vasopressor effect (no apparent vasodilating component) and a direct myocardial-stimulating effect. It can be given intramuscularly, subcutaneously, or by direct intravenous injection, thus averting the use of extra fluids contraindicated in some gravely ill patients.

in anaphylactic shock: ARAMINE is the general purpose vasopressor in shock caused by medications or insect stings or in shock of unknown etiology. One intramuscular injection of ARAMINE will usually maintain adequate blood pressure until the emergency can be contained.

Brief Summary: Indications: Acute hypotension. **Side Effects, Precautions, and Contraindications:** Not recommended with cyclopropane or halothane anesthesia. Avoid excessive blood pressure response. Use with caution in heart or thyroid disease, high blood pressure, diabetes, and in areas of poor vascularity. Before prescribing or administering, read product circular with package or available on request.

Supplied: In 1-cc. ampuls and 10-cc. vials, each cc. containing 10 mg. metaraminol present as the bitartrate and 4.4 mg. sodium chloride in water for injection. Preservatives: 0.15% methylparaben, 0.02% propylparaben, and 0.2% sodium bisulfite.

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INJECTION

ARAMINE®
METARAMINOL (present as
the bitartrate)



Physician Accident Prevention

According to Luther L. Terry, Surgeon General of the Public Health Service, accidental injuries occurring between July 1959 and July 1961 caused a yearly average of 460 million days of reduced activity among the civilian population of the United States. This figure includes 114 million days spent in bed, 84 million work days lost by gainfully employed persons, and 12 million school days lost by children from 6 to 16 years old. The remainder includes nonwork and nonschool days for these groups, and restricted activity among housewives and other persons.

More than 90,000 persons are lost from accidental deaths and about 45 million are injured annually. This is a grim picture that should be of interest to all physicians. There is no better field to practice and preach prevention. This should begin in the patient's home when house visits are made. Hazards should be pointed

out and corrective measures suggested. Advice relative to behavior at work, recreation, and on vacation also are in order.

Motor vehicles cause 19 per cent of the days of reduced activity, more than 22 per cent of the bed days, and 20 per cent of the time lost from work. There are no statistics, to my knowledge, as to the medical causes of auto accidents. All physicians know that some persons should never get a driver's license or should have their present license revoked for physical, mental, or emotional reasons. Others should not drive while taking certain drugs. We can help considerably by cooperating along these lines as part of our responsibility to the well. We never hesitate to take out of circulation a person with active tuberculosis but do very little with a psychopath who is a terror on the highway.

(Editorials continued on page 79)

JUST WHAT THE DOCTOR ORDERED A RELAXING HOBBY WITH A FUTURE COIN COLLECTING



Collecting Rare Coins can provide much needed relaxation from everyday tensions and pressures of hospital and medical duties. While enjoying your leisure hours, you can provide tremendous Future Value for your Estate. Through proper guidance you could have invested only \$5,000 in Rare Coins in 1955 and today they would have a value of \$17,800.

Rare Coin Company of America is one of the largest Coin Dealers in the Country. We offer Guidance and Help in making Proper

Selections for Substantial Future Profits.

If you have \$200, \$2,000, \$20,000 or any amount above or below, to invest wisely in a venture with excellent future profits, write us for complete facts about starting your collection of Coins and Rare Currency.



RARE COIN COMPANY of AMERICA
Professional Numismatic Brokers and Appraisers
31 North Clark Street, Dept. MJ, Chicago 2, Illinois

For a good night's sleep without barbiturate side effects: **Doriden** (glutethimide)

Patients sleep soundly up to 8 hours and awake refreshed with Doriden (glutethimide). In addition, they benefit from its specific advantages over barbiturates:

- rarely causes pre-excitation; onset of action is smooth
- metabolized quickly, thus rarely produces morning "hangover"
- not contraindicated in the presence of liver and kidney disorders
- well tolerated by the elderly and chronically ill
- rarely depresses respiration

AVERAGE DOSE: 0.5 Gm. at bedtime. Total daily dosage over 1 Gm. not recommended for continuing therapy.

CAUTION: Careful supervision of dosage is advised, especially for patients with a known propensity for taking excessive quantities of drugs. Excessive and prolonged use of glutethimide in susceptible persons, for example, alcoholics, former addicts, and other severe psychoneurotics, has sometimes resulted in dependence and withdrawal reactions. In those cases, dosage should be reduced gradually to lessen the likelihood of withdrawal reactions such as nausea, abdominal discomfort, tremors, or convulsions.

SIDE EFFECTS: Occasional reversible skin rash and nausea.

SUPPLIED: Tablets, 0.5 Gm., 0.25 Gm., and 0.125 Gm. Capsules, 0.5 Gm.

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C I B A
SUMMIT, N.J.

Doriden® (glutethimide CIBA)

Relief of Angina with Phlebotomy

Burch and De Pasquale¹ found that phlebotomy decreases the frequency of anginal attacks in patients with hematocrits over 50 per cent. The hematocrit level was reduced to about 45 per cent by frequent small volume phlebotomies. Most of the patients had sustained a previous coronary thrombosis and now had erythrocytosis and systematic ischemic heart disease. None suffered with polycythemia vera.

Phlebotomy was considered following a study on the hematocrit levels of 100 men and 120 women with acute myocardial infarction. Their hematocrit levels were significantly higher than a control group of similar age without clinical evidence of coronary artery disease.

Blood viscosity cannot be measured in vivo but is related to hematocrit and to linear rate of blood flow. The influence of hematocrit on blood viscosity varies continuously throughout the pulse cycle, from vessel to vessel, as well as in different segments of the same vessel. As the apparent viscosity of the blood increases, the energy necessary to force the blood past the narrowed segment of coronary artery also increases. This may explain why many of these patients improved when the hematocrit fell below 50 per cent.

The authors also suggest that the relative infrequency of myocardial infarction in pre-menopausal women may stem from the normal phlebotomies of menstruation.

One of their patients had dramatic improvement following a severe gastrointestinal hemorrhage. Her hematocrit dropped from 48 per cent to 26 per cent. She spontaneously inquired whether "bleeding was good for her."

The authors agree that the etiology of myocardial infarction is extremely complex. They believe, however, that the hematocrit and blood viscosity may be two of these factors.

REFERENCE

1. Burch, G.E., and De Pasquale, N.P.: Phlebotomy, Arch. Intern. Med. 111:687 (June) 1963.

T. R. Van Dellen, M.D.



**Dr. Percy E. Hopkins,
Chairman, AMA Board
of Trustees**



**Dr. Walter C. Bornemeier,
Vice Speaker, AMA House
of Delegates**

AMA ELECTIONS

Leading ISMS Figures Assume Important AMA Posts

Two long-time leaders of the Illinois State Medical Society were honored nationally by their colleagues at the Convention of the American Medical Association in Atlantic City last month.

Dr. Percy E. Hopkins was re-elected Chairman of the AMA Board while Dr. Walter C. Bornemeier, "Mr. Speaker" of the ISMS House of Delegates, was elected vice-speaker of the AMA House of Delegates.

Dr. Hopkins, president of ISMS in 1949, was originally named Chairman of the Board of Trustees in November replacing Dr. Hugh H. Hussey, who resigned to become director of the AMA's Division of Scientific Activities. Dr. Hopkins will serve a three-year term.

Besides serving the Society as President, Dr. Hopkins' other ISMS activities include tenure as member and Chairman of the Board and Chairman of the Committee on Medical Services for many years.

Dr. Hopkins currently is chief of the medical staff of Christ Community Hospital in Oak

Lawn. He is a fellow of the American College of Surgeons and served for six years as president of the Illinois Medical Service.

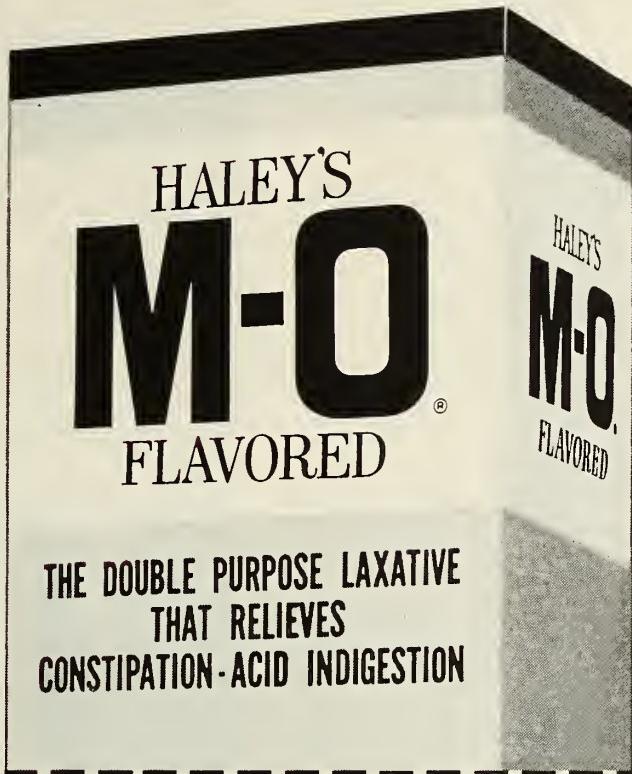
Dr. Bornemeier, who was named to serve a one-year term as vice-speaker, is a former chairman of the Illinois delegation to the AMA. He is president of the Tuberculosis Institute of Chicago and Cook County and is the senior attending surgeon at Illinois Masonic Hospital.

He is a Diplomat of the American Board of Surgery and a member of the American College of Surgeons and many other medical, educational and community organizations.

Dr. Bornemeier was elected to his third term as Speaker of the ISMS House of Delegates at the May meeting.

ISMS President Dr. Harlan English praised the election by saying "These two men are dedicated to the public and the profession. This election is an honor both to them and to the continuing leadership that Illinois takes in the field of organized medicine."

NOW ALSO IN FLAVORED FORM!



Antacid-Laxative-Lubricant to help correct constipation

Magnesium Hydroxide plus pure mineral oil make *Haley's M-O* a smooth working antacid-laxative-lubricant that efficaciously relieves constipation and attendant gastric hyperacidity.

The oil globules in *Haley's M-O* are minutely subdivided to assure uniform distribution and thorough mixture with intestinal contents. Oil leakage is thus avoided and a comfortable evacuation is effected through the stimulation of normal intestinal rhythm and blunted defecation reflex.

May we send samples for your evaluation? Just write:

THE CHAS. H. PHILLIPS CO.

Division of Sterling Drug Inc., 1450 Broadway, New York 18, N. Y.

ISMS
at
AMA

*Illinois Delegates Luncheon at AMA
112 Annual Meeting in Atlantic City
June 17 Preludes Hopkins-Borne-
meier Election Victories*



"TOP BRASS" congregating around pool at the Colony Inn, where luncheon was held, are (from left) George F. Lull, M.D., immediate past president of ISMS and Major General, USA MC (retired); Capt. James W. Firoved, USM MC, Washington, D.C.; Maj. Gen. A. L. Jennings, USAF MC; Rear Admiral E. C. Kenney, USN, MC; and Brig. Gen. Carl F. Steinhoff, AUS MC (retired).



SWINGIN' IT is Burtis ("Gene Krupa") Montgomery, M.D., whose "Old Frontier Band" entertained at Delegates Luncheon on Monday and at ISMS Hospitality Suite on Sunday.



RECEIVING LINE at luncheon was headed by Harlan English, M.D., (left foreground), Percy Hopkins, M.D., (left center), and William K. Ford, M.D. (center, facing right).

. . . AND A GOOD TIME WAS HAD BY ALL.





Harold M. Visotsky, M.D.

Appointments

The retirement of Dr. Francis J. Gerty as Director of the Department of Mental Health has been announced by Governor Kerner. Dr. Gerty has headed the Department since its inception in 1961. The retirement is effective August 1.

As his successor, the Governor has appointed Dr. Harold M. Visotsky, presently serving as deputy-director of the Department.

Dr. Visotsky was born in Chicago and received his medical degree from the University of Illinois in 1951. He took advanced training at the University's Neuropsychiatric Institute after his internship. Assistant professor of psychiatry at the University, he served for a time as director of its Psychiatric Residency Education and Training Program.

In 1951 he was named director of mental health for the Chicago Board of Health where he served until appointed deputy director earlier this year.

*Forest
Hospital*

- A nationally known psychiatric treatment center, accredited by the Joint Commission on Accreditation of Hospitals and the Central Inspection Board of the American Psychiatric Association.
- New therapy building with swimming pool, gymnasium, game room, beauty shop, living-bedroom combinations, an open area for selected patients. Milieu therapy.
- Fifty-six attending psychiatrists, a consulting staff of 30 in all specialties, and a house staff of seven.
- Conducts an extensive adjunctive therapy program, in which occupational, recreational and group work staff combine skills in a total therapeutic effort (with patient activities and staff attitudes specifically prescribed by the physician).
- An adolescent program under full time child Psychiatrist.

YOUR INSPECTION IS INVITED

Rudolph G. Novick, M.D.
Medical Director



555 WILSON LANE, DES PLAINES, ILL. PHONE: 824-2193—299-3311

Other recent appointments include:

Dr. Liberato J. A. Di Dio, internationally renowned Brazilian anatomist—professor of anatomy at Northwestern University Medical School.

Mr. Gavin A. Pitt, former president of Presbyterian-St. Luke's Hospital—Director of the Institute of Medicine of Chicago.

Dr. H. David Mosier, former associate professor of pediatrics at UCLA—research director at Illinois State Pediatric Institute in Chicago.

Dr. Merrel D. Flair, coordinator of research and public service for Skokie, Illinois Public Schools—assistant dean of Northwestern University Medical School.

Elections

Dr. Edmund Jacobson, director of the Laboratory for Clinical Physiology, Chicago, was elected President of the newly organized American Physicians Society for Physiologic Tension Control.

Dr. Charles K. Petter, Medical Director, Lake County Tuberculosis Sanatorium in Waukegan, was elected president of the American College of Chest Physicians at their recent meeting. Elected Treasurer and Assistant Treasurer were Dr. Albert H. Andrews of the University of Illinois College of Medicine and Dr. William E. Adams, University of Chicago School of Medicine.

Dr. Harry Faulkner, Chicago, has been elected president of the Chicago Pediatric Society.

Dr. Edwin L. Crosby, Winnetka, has been inducted as president of the International Hospital Federation at its Congress in Paris, France. Dr. Crosby is presently executive vice president and director of the American Hospital Association.

Dr. Gustav L. Zechel, Chicago, has been elected president of the German Medical Society of Chicago.

Recent reports suggest...insulin and sulfonylureas may accelerate lipogenesis, fat accumulation, weight gain; thus appear to aggravate obesity in diabetics¹⁻⁵ ...serum "insulin" levels are often elevated in obese diabetics^{2,3,6}...DBI (phenformin HCl) reduces high blood sugars, lowers elevated "insulin" levels, tends to reduce body weight toward normal.^{1,3,7-9}

most effective in the obese diabetic

DBI®
tablets 25 mg.

DBI-TD®
timed-disintegration capsules 50 mg.

BRAND OF PHENFORMIN HCI



University News

University of Illinois

Students in the upper third of their class at the University of Illinois College of Medicine in Chicago can now work for a graduate degree while continuing to earn an M.D. After their freshman year at the college, qualified students can begin to take 3/4 of a unit each quarter of work toward an M.S., Ph.D. or other advanced degree to prepare themselves for academic or research careers.

Northwestern University

The third class in Northwestern University Medical School's unique program of accelerated and integrated medical education (AIM) has been accepted for the 1963-64 term.

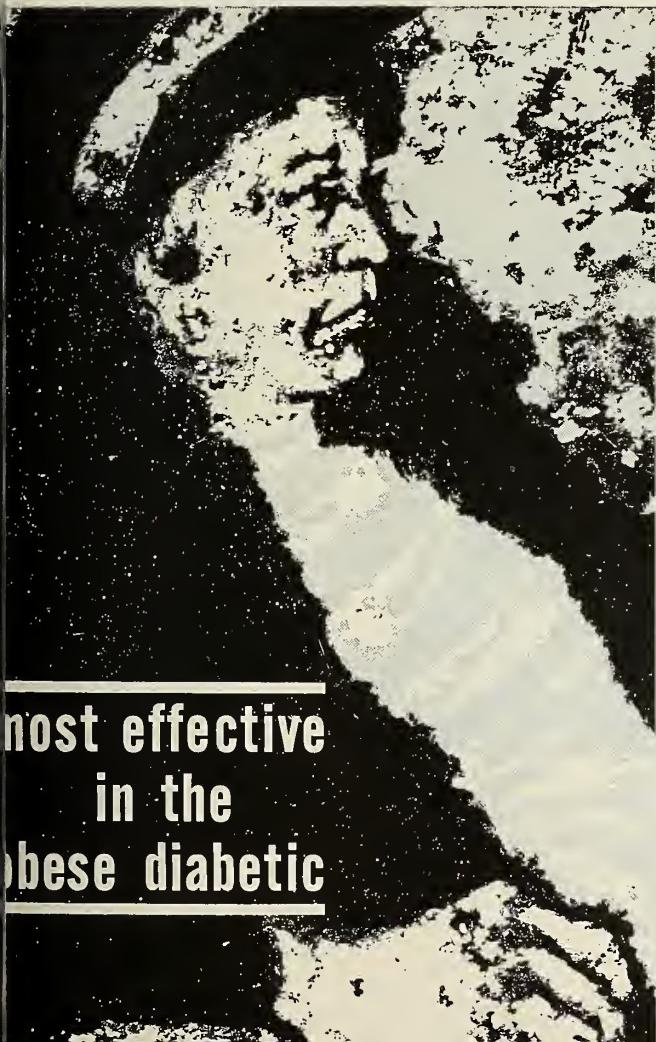
As in the past, enrollment in this experimental

program was limited to 25 top-graded high school students. More than 300 applications were received this year, said Dr. John A. D. Cooper, associate dean of the Medical School and director of the AIM project.

This year's class had an average National Merit Scholarship Examination score of 147, and the average score on college board aptitude tests was 719; both of these are considered exceptional.

Five girls and six sons of physicians are included. The students come from 13 states, bringing to 23 the number of states represented in the project's first three years. As in the past, almost half of the group came from Illinois.

Northwestern's AIM program is designed to challenge the exceptionally gifted high school graduate. The pre-medical and medical courses are combined into a single program that may be completed in six years, instead of the seven or eight usually needed for an M.D. degree.



most effective
in the
obese diabetic

DBI and DBI-TD (phenformin HCl),

administered to ketoacidosis-resistant diabetics requiring hypoglycemic therapy: A. act to reduce high blood sugar without increasing fat synthesis or weight gain as insulin and sulfonylureas tend to do. B. do not increase already elevated endogenous insulin levels; may, indeed, act to restore more normal insulin levels. C. favor reduction of weight towards normal.

Insulin is still the essential hypoglycemic agent for the ketoacidosis-prone diabetic. However, in the ketoacidosis-resistant obese diabetic phenformin appears to be the hypoglycemic of choice to help avoid weight gain or reduce adiposity, a factor tending to make control more difficult and to increase the likelihood of complications.

Summary: Indicated in stable adult diabetes, sulfonylurea failures and unstable diabetes. Gastrointestinal side effects occurring more often at higher dosage levels abate promptly upon dosage reduction or temporary withdrawal. Occasionally an insulin-dependent patient will show "starvation" ketosis (acetoneuria without hyperglycemia) which must be differentiated from "insulin-lack" ketosis, and treated accordingly. Use with caution in severe liver disease. Not recommended without insulin in acute complications (acidosis, coma, infections, gangrene, surgery). Consult product brochure for full information.

Bibliography: 1. Williams, R. H.: Textbook of Endocrinology, Ed. 3, Saunders, Philadelphia, 1962, p. 610. 2. Gordon, E. S.: Metabolism 11:819, 1962. 3. Grodsky, G. M. et al.: Metabolism 12:278, 1963. 4. Sadow, H. S.: Metabolism 12:333, 1963. 5. West, K. M. and Topham, E.: Metabolism 10:689, 1961. 6. Yalow, R. S. and Berson, S. A.: Diabetes 9:254, 1960. 7. Weller, C. et al.: Scientific Exhibit, A.M.A., June 1962. 8. Weller, C. et al.: Metabolism 11:1134, 1962. 9. Radding, R. S. et al.: Metabolism 11:404, 1962.

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OPEN HOUSE AT SPACIOUS NEW HEADQUARTERS, 310 South Michigan, took place immediately after installation of new President and President-Elect. New CMS offices occupy Suite 1616 at the South Michigan Ave. address. Phone number now is 922-0417.



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Being a member of the 1913 graduating class of Bennett Medical College, I am asking your help to get some information if possible on the names of members of our class listed below. If living, I would like to know their address and if dead, the date and cause of death.

I have tried various directories, medical and otherwise but have failed to find reference to those on the enclosed sheet.

There were 94 graduates of our class of 1913. I have found records of all of the rest of the class both living and dead.

We are planning on having a 50 year reunion and would like to contact as many members of our class as possible.

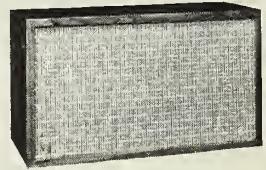
Thanking you very much and with best wishes to you, I am,

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Agnes Thompson
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In the Family

Robert D. Simmons and William A. Simmons sons of Dr. Joseph Dale Simmons of Kirkwood, Illinois, were recipients of M.D. degrees from St. Louis University recently. Other physician members of their family include their uncle, the late Dr. Daniel Simmons of Roseville and

their paternal grandfather Dr. William A. Simmons.

Nursing Home Study

A National Council for the Accreditation of Nursing Homes, jointly sponsored by the American Medical Association and the American Nursing Home Association, has been organized to carry out a nationwide program to promote high standards among nursing homes.

The Board of Directors includes ISMS' member Dr. H. Close Hesseltine.

Special Mental Health Unit

A special unit for patients with diabetes, obesity and other metabolic disorders has opened at Anna State Hospital. It is the first of its kind in any facility of the Department of Mental Health, according to Dr. Francis J. Gerty, director of mental health.

"What led to the formation of this unit was recognition that common disturbances in metabolism may exaggerate psychiatric problems

or create additional difficulties," commented Dr. Robert C. Steck, superintendent of the hospital.

Illinois At the Top

Illinois rates among the top five states nationally in the number of community out-patient psychiatric clinics, professional staff and man-hours worked per week at these clinics. The findings were revealed in the 1962 report of the Outpatient Studies Section of the Biometrics Branch of the National Institute of Mental Health. In the report, Illinois with a total of 92 clinics, ranked fourth. Heading the list were New York, California and Pennsylvania.

Universal Symbol Planned

A new universal symbol which will tell anyone rendering emergency care to a person who is unconscious or otherwise unable to communicate that its wearer has a special physical condition requiring special attention has been planned by the AMA's Committee on Emer-

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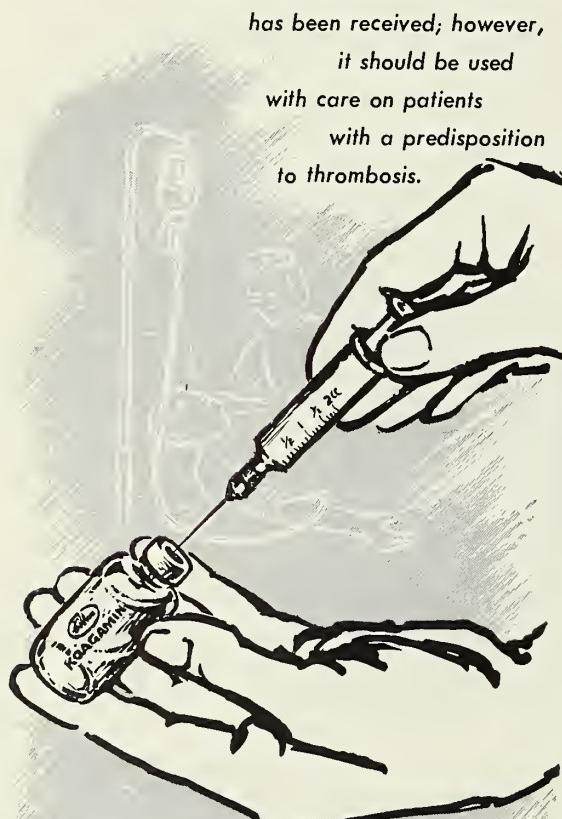
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Available Films

Two new films have been completed by Winthrop Laboratories and are now available to the medical profession. "A New Diagnostic Technic for Stroke-Retrograde Cerebral Angiography" was filmed at All Souls Hospital, Morristown, New Jersey. The second film, made at Massachusetts General Hospital in Boston, is titled: "Vitallium Mold Arthroplasty for Lesions of the First M-P Joint of the Foot; Proper Digital Neurofibromatosis-Surgical Treatment." Both movies are in 16 mm color with sound.

Deaths

Peter J. Bartkus*, retired, Los Angeles, a graduate of Loyola University School of Medicine in 1939, died aged 49.

William F. Becker*, Chicago, a graduate of Ludwig Maximilian University School of Medicine, Munich in 1924, died May 15, aged 66. He was a fellow of the Industrial Medical Association.

Julius Blumenstock*, Danville, a graduate of Rush Medical College in 1928, died May 23, aged 65. He served as a neuro-psychiatrist at the Veterans Administration Hospital in Danville. He was a member of the American Psychiatric Society and the American Geriatric Society. He was an Army veteran of World War I and II serving as a captain.

George H. Coleman*, retired, Chicago, a graduate of Rush Medical College in 1913, died June 8, aged 78. Certified in Internal Medicine in 1936, he was a charter member of the American Board of Internal Medicine and a former president of the Chicago Society of Internal Medicine. For more than 35 years he served as secretary of the Institute of Medicine of Chicago. In 1958 the Institute established the George H. Coleman Award given annually for outstanding service in medical and allied sciences. Dr. Coleman was the first recipient. He was an emeritus member of ISMS.

Edward Corcoran*, Chicago, a graduate of the University of Illinois College of Medicine in 1902, died

May 19, aged 88. He was an emeritus member of ISMS and a member of the 50 Year Club.

Frederick J. Corey*, Havana, a graduate of Rush Medical College in 1903, died May 3, aged 84.

F. C. Gale*, retired, Pekin, a graduate of Bennett Medical College in 1903, died May 25, aged 88. He was a member of the ISMS 50 Year Club and an emeritus member of the Society.

Jay W. Lowell*, Chicago, a graduate of Stritch School of Medicine of Loyola University in 1919, died April 2, aged 70. He was certified in ophthalmology in 1942.

John Milroy*, Waukegan, a graduate of Rush Medical College in 1935, died January 28, aged 62.

Rollin B. Rice*, retired, Mount Carroll, a graduate of the College of Medicine and Surgery in 1889, died May 17, aged 96. He had served 25 years as Carroll County health officer. He was a member of the 50 Year Club and an emeritus member of the Society.

Gerard J. Sciaraffa*, Elgin, a graduate of Chicago Medical School in 1943, died May 14, aged 47. He headed the Elgin Department of Health since 1955 and was a member of the American Society of Abdominal Surgery and the American Academy of General Practice, of which he was Illinois president for several years.

Mieczyslaw Srokowski*, Chicago, a graduate of Jozefa Pelsudshiego University, Warsaw, in 1925, died May 13, aged 64.

Charles F. Weege*, Chicago, a graduate of Jenner Medical College in 1908, died June 5, aged 91.

James F. Wharton*, Chicago, a graduate of the Hahnemann Medical College in 1905, died May 14, aged 81. He was an emeritus member of the Society and a member of the 50 Year Club.

*Indicates member of Illinois State Medical Society.

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LEGISLATIVE LISTENING POST

August, 1963

RECAP OF STATE LEGISLATIVE ACTION

Of the approximately 3200 bills and resolutions which were introduced in the 73rd General Assembly, the unofficial record will show 762 Senate bills passed and 856 House bills passed for an unofficial total of 1618 bills passed at this session of the legislature. The date at which this goes to the printers there are 835 bills still to be acted on by the Governor. A statement by the Governor would indicate it will be the last part of August before he will have completed action on all bills.

We will attempt to briefly evaluate the disposition of some of the legislation which was being watched by the legislative division of the Illinois State Medical Society, other than that which appeared in the July issue of the Legislative Listening Post. We will note with an asterisk (*) the legislation which was introduced at the instance of the Society. The other legislation was introduced by a variety of persons and organizations. The order of listing will not portray the importance. In one area or another, all legislation is of importance. We have indicated with an "A" after the bill number, that legislation which was amended in the legislative process.

In the 73rd General Assembly of 1963, the legislative division had a definite interest in an unofficial list of 190 bills. The record seems to reveal the official interest in only 79 bills in the 72nd General Assembly of 1961.

HB 90A Tattooing (Svalina)

Unlawful to tattoo person under 21 (request of Chicago Police Department). GOVERNOR SIGNED.

HB 92A Hospital Costs (Wilson)

Creates 10 member legislative committee to investigate hospital costs. Medical costs amended out. PASSED.

HB 106A Emergency Hospital and Medical Care (Mann)

Broadens compulsory emergency care hospitals must render to cover acute medical condition as well as accident or injury. PASSED.

HB 144 Nurses Examining Committee (Dawson)

Companion bill to H-143. Changes qualifications for Nurses Examining Committee. Raises membership from 5 to 7. Shortens term from 5 to 3 years. PASSED.

HB 260A Migrant Labor Camps (McConnell)

Amends act in relation to migrant labor camps to make the same applicable to facilities for 10 (now 6) or more migrant workers. Reduces certain requirements. GOVERNOR SIGNED.

HB 261 Phenylketonuria (Welsh)

Same as S-291. Requires physician attending birth to perform phenylketonuria test. Designates powers and duties of the Department of Public Health. DEFEATED ON HOUSE FLOOR.

HB 270A Physical Examination (Saperstein)

Requires examination for unexamined transfer students without waiting until next examination grade level. SIGNED BY GOVERNOR.

HB 320A Southern Illinois University (Kennedy)

Same as SB 515A. Removes provision prohibiting Southern Illinois University from offering degree course in law, medicine, etc. PASSED.

SB 15A Seat Belts (De La Cour)

Same as H 603. Requires all new motor vehicles beginning with 1965 models to be equipped with seat belts. APPROVED BY GOVERNOR.

HB 690 Regulates Solicitation (Mikva)

Regulates solicitation and collection of funds for charitable purposes. PASSED.

HB 838 Blood Banks (Merlo)

Requires registration of clinical laboratories & blood banks with the Dept. of Public Health and authorizes Department to inspect and regulate same. ISMS valiantly fought this to defeat. TABLED IN SENATE.

HB 901 Drivers License (Ralph T. Smith)

Secretary of State drivers license amendments. Compulsory medical reporting by doctor. Five conditions were specified plus a catchall provision. Appropriate burial. TABLED IN COMMITTEE.

*HB 966 Drivers License (Murphy)

ISMS version of improvements to license and operate a motor vehicle. ISMS held in committee without hearing. TABLED.

HB 965 Tuberculosis Research (Dale)

Appropriates \$192,000 to the Board of Trustees of the U of I for expenses in connection with the Institution for Tuberculosis Research. GOVERNOR SIGNED.

*HB 976 Reciprocity (Ralph Smith)

Provides that no person may obtain a license by reciprocity who has failed a written examination given by the Illinois Examining Committee. PASSED.

***HB 1065 Definition of Physician (Erlenborn)**

Amends law in connection with the construction of Statutes to define the word 'physician.' TABLED.

HB 1129 Chiropractors Education (Hittmeier)

Raises professional education requirements for license to practice the treatment of human ailments without the use of drugs or operative surgery. PASSED.

HB 1201 Regulates Electrologists (Pollack)

Regulates the practice of electrolysis. ISMS believed not enough was known about this field. It persuaded the sponsor to table the bill. TABLED ON HOUSE FLOOR.

***HB 1207A thru *HB 1209 Medical Corporations (Choate)**

Authorizes one or more doctors to organize corporations for the practice of medicine pursuant to the business corporation act. PASSED.

***HB 1311 Midwifery (Carroll)**

Provides that without prejudice to licenses heretofore issued no further licenses to practice midwifery shall be issued. PASSED.

***HB 1314 Kerr-Mills (Kaplan)**

Same as SB 746. Kerr-Mills improvements. Defines cash (now face) value of life insurance as resource. Provides that the commission may determine what portion of a recipient's income is available for medically indigent aged assistance. These amendments were worked out in conjunction with and unanimously agreed to by Mr. Harold Swank of the IPAC, the IHA and ISMS. PASSED.

HB 1409A Unclaimed Bodies (Armstrong)

Disposition of unclaimed bodies. PASSED.

HB 1489A Good Samaritan (Hachmeister)

Provides that doctors who render emergency care for injuries at the scene of any emergency or accident shall not, as a result of acts or omissions in providing care, be liable for civil damages. PASSED.

HB 1552 Physical Examinations (Kahoun)

All persons making applications for a license to marry shall at any time within fifteen days prior to such application be examined by a person duly licensed to practice medicine in all of its branches. TABLED IN COMMITTEE.

SB 417 Dangerous Drugs (Cronin)

Limits total amounts of narcotics available under exemptions. PASSED.

SB 458 Increases Medical License Fees (Simon)

Increase license and examination fees of the Medical Practice Act. These increased fees in the Medical Practice Act proposed by the Department of Registration and Education are in order with increases suggested for other groups. It was agreeable by ISMS, if the supplemental appropriation was passed to make it possible for the Department to create better enforcement of the Medical Practice Act. GOVERNOR SIGNED.

SB 471 Appropriation (Simon)

Additional appropriation of \$697,830 to the Department of Registration and

Education. This supplemental appropriation would make better enforcement by the Department possible. GOVERNOR SIGNED.

SB 631A Pharmacy Practice Act (Meyer)

Changes many sections of the Pharmacy Practice Act. PASSED.

SB 756A, SB 757 Radiation Protection Act (Drach)

Requires registration, licensing, inspection and control of radiation sources by Dept. of Public Health. PASSED.

*SB 760 Communicable Diseases (Eberspacher)

Provides that communicable disease reports shall be confidential. PASSED.

SB 821A Northern Illinois University (Collins)

Eliminates section providing that no professional courses in law, medicine, dentistry, pharmacy, engineering or agriculture may be offered at NIU. PASSED.

SB 832 Atomic Energy (Drach)

Creates Ill. Legislative Commission on Atomic Energy. PASSED.

SB 1097A Workmen's Occupational Disease (Drach)

Authorizes persons who contract disease caused by atomic radiation to make application for occupational disease benefits. PASSED.

ADDITIONAL INFORMATION

It is impossible to elaborate on all the bills introduced at the session of the General Assembly just passed. An effort has been made to acquaint you in general with the subject matter and its disposition to date. The Regional Office at Springfield will be happy to furnish you with the detail on specific issues.

The Regional staff has started compiling the voting record of the members of the General Assembly on the key issues of the past session. We intend to make it available to all members of ISMS.



Illinois Medical Journal

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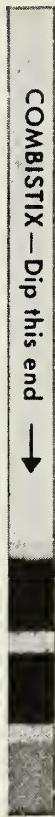
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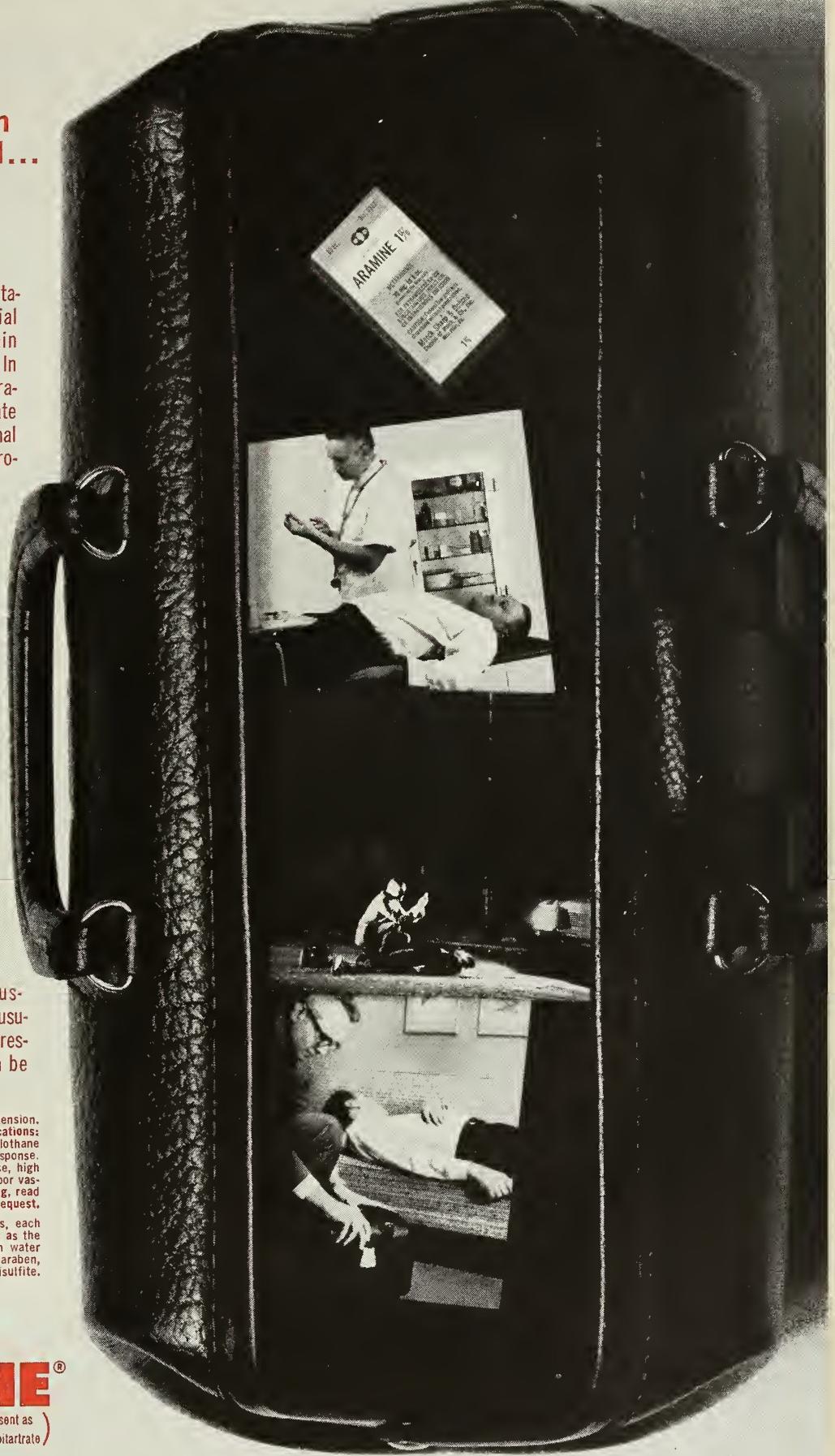
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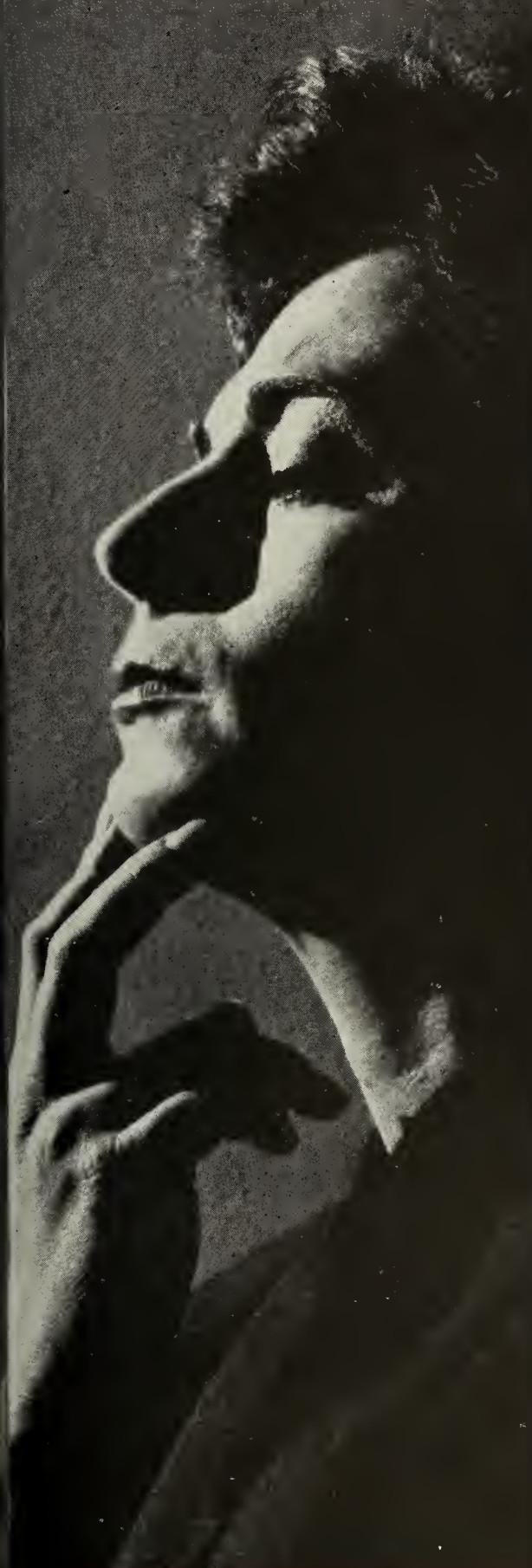
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AS I SEE IT FROM '360'

By ROBERT L. RICHARDS
Executive Administrator

ISMS Leads in Formation of Illinois Association of Professions

Meeting the *full* needs of a professional man is not easily done in social, political or profession organizations. However, an organization developing now in Illinois promises to fulfill needs which have long existed.

In 1962, the House of Delegates of the Illinois State Medical Society authorized a special committee under the chairmanship of Dr. George B. Callahan of Waukegan to explore the possibilities of forming an Association of the Professions to include not only the medical arts but other professional areas, e.g., architecture, engineering and law.

Following the excellent example of the Michigan Association of the Professions begun in 1958, Dr. Callahan and his committee have initiated meetings with the professional groups of Illinois for this purpose.

Why is this group necessary in a society characterized by organizations? A profession in its very definition includes the responsibility of interpreting itself to the public and expressing its social conscience by cooperating with the other ethical professions. Individual doctors, lawyers or architects are limited by funds, time and contacts but, having once joined together, many effective activities are possible.

Education and public relations programs with the general public may be properly advanced. Professionals may join together to guarantee that the privileges of a profession are not impaired by lawmaking bodies. Common business services, equipment and group insurance plans are possible. A medium of establishing interprofessional codes can be provided.

Several groups including the Illinois Veterinary Association and our own Society have now committed themselves to the formation of an Association of the Professions. This idea is spreading throughout the country. In New York over 4,000 applicants were received through the first announcement mailing.

An Association of the Professions will not replace, duplicate or compete with the ISMS but will supplement our activities. Its efforts will be directed to the economic, political, social and public relations problems common to more than one profession. It will not be controlled by any one profession—all will have a voice in its workings.

As final plans are evolved, you will hear more about the Illinois Association of the Professions. Its success may markedly affect your professional future.

Exclusive IMJ Interview with

"THE DOCTORS WHO DELIVERED THE QUADS"

On July 17, 1963, a 1:700,000 "long shot" in medical statistics "made it home"—as the identical quadruplet girls born to Mrs. Delores Harris of Chicago two weeks before were released from Michael Reese Hospital. That same day, two Chicago physicians who played a major role in this historic event visited the ISMS offices. They are Drs. William Alpern and Allen Charles, attending physicians, Division of Obstetrics and Gynecology, Michael Reese Hospital.

While the births were eventful enough in themselves, the doctors pointed out that they were attended by a number of "firsts":

- 1) FIRST recorded quadruple births in the Midwest;
- 2) FIRST use of plastic impregnation of placental circulation in identical quads—an injection of vinyl base dye into the placenta which forms a mold of the placental vascular system;



INVOLVED PROTOCOL for quadruplet labor and delivery is described by Dr. Allen Charles (left) and Dr. William Alpern (right) in visit with executive administrator Robert L. Richards at ISMS offices.

- 3) FIRST recorded case in which all four fetal heartbeats were detected by fetal electrocardiogram; and
- 4) FIRST use of placentogram in identical quads.

"As far as we can tell," Dr. Alpern remarked, "there also is a second-place record involved. The quads were the second heaviest at birth ever recorded." (See Fig. 1.)



ECSTATIC MOTHER of quads, Mrs. Delores Harris, (above), proudly displays four identification tags bearing the names (pictured at right, from left): "Sheena, Shawna, Sherri, and Shannon."

FIGURE 1.
WEIGHTS OF THE HARRIS QUADRUPLETS

Birth Weight June 30	Weight July 17
A.....4 lbs., 10 oz.	5 lbs., 3 oz.
B.....4 lbs., 15 1/2 oz.	5 lbs., 6 1/2 oz.
C.....4 lbs., 14 1/2 oz.	5 lbs., 7 3/4 oz.
D.....4 lbs., 7 1/2 oz.	5 lbs., 3 oz.



FIGURE 2.
PROTOCOL FOR QUADRUPLET LABOR AND
DELIVERY

Section I

Onset of labor—Notify the following:

- (a) Attending physicians on service
- (b) Drs. F. Rubovits (to July 1, 1963; Dr. E. Friedman thereafter)
 - W. Alpern
 - A. Charles
 - Brill
 - Eisenberg
- (c) Dr. William Oh — In charge of Premature Nursery
- (d) Mr. Joel Edelman

Section II Intrapartum Procedure

- (a) Put patient in Constant Care Unit
- (b) I V running with intracath
- (c) T and X 2000 cc whole blood
- (d) FECG (Dr. Eisenberg)
- (e) Labor to be followed and documented continuously by Dr. Richard Julien (until July 1, Dr. B. Mann thereafter).
- (f) Notify Medical Anesthesiologist in time sufficient for delivery.

Section III Delivery Room

- (a) Use Room A, B, or C if possible
- (b) Pudendal block set-up
- (c) General Anesthesia set-up
- (d) Usual delivery set-up plus following:
 1. Four sets of specially labeled Hesselteine cord clamps (A, B, C, D)
 2. Four sets of standard cord clamps
 3. Extra bulb syringe
- (e) (2) Gordon-Armstrong incubators in room
- (f) (4) small Formalin Spec. bottles
- (g) (4) oxylated spec. tubes

- (h) (4) plain tubes
- (i) Large polyethylene bag for placenta

Section IV Actual Delivery

- (a) O₂ to mother
- (b) Pudendal block
- (c) After delivery of each infant a labeled cord clamp is to be placed on fetal and maternal side of cord for identification.
- (d) Two infants to be placed in each incubator.
- (e) Resuscitation to be performed by Obstetrical staff if necessary.
- (f) Allow placenta if possible to deliver spontaneously.
- (g) Give 1 cc I V methergine and add 2 amps of Syntocinon to I V bottle.
- (h) Measure abdominal girth before and after delivery.
- (i) Immediate post partum in labor room.

Section V Studies on Placenta

- (a) Photos
- (b) Some of each cord blood for
 - (1) Hgb (slips made in advance)
 - (2) Serum Center (slips made in advance)
- (c) Segment of membranes near insertion to be excised and placed in formalin.
- (d) Put placenta in polyethylene bag and freeze (label)
- (e) Measure and weigh placenta.

Section VI Postpartum (Mother)

- (a) Blood volume daily.
- (b) Hgb and Hcrit daily.
- (c) Daily weight.
- (d) 24 hour urine for volume.

Mrs. Harris, mother of the quads, was first seen on March 19, 21 weeks pregnant by date. "However, her uterus at that time was enlarged to 28 weeks," Dr. Charles explained, "and we suspected a multiple pregnancy. This was confirmed by roentgen examination."

"After the quads were born, the plastic impregnation, placental membrane studies as well as hematologic studies in which 13 major factors worked out identically, proved that they were monochorionic quadraamnionic, or identical," Dr. Alpern asserted.

Within three weeks after the diagnosis of multiple pregnancy, Mrs. Harris was admitted to Michael Reese Hospital, where she stayed

mained in excellent health throughout gestation and was a cooperative patient," Dr. Alpern stated.

At 9:00 p.m. on June 30, Mrs. Harris went into labor. "We saw her at 10:00 p.m. and between 11:09 and 11:19 p.m. the quads were born," Dr. Charles stated.

The first delivery was a head presentation, the second a breech, and the third and fourth transverse lies. "Delivery was extremely easy and the children were perfectly normal," Dr. Alpern stated.

On their release from the hospital, the quads were receiving routine newborn care.

"When Mrs. Harris went into labor, our en-

Some interesting facts about quadruple births

- Human quadruplets occur once in every 700,000 births.
- Only 16 living sets of quadruplets have been reported in the English-language literature for the past 30 years.
- In 65% of quadruple births, from one to four of the infants may die within a year.
- Half of these deaths generally occur within the first three to four weeks of life.

until delivery 82 days later. "The three-week interim was spent developing a protocol which was vital to maximum study of labor and delivery," Dr. Charles explained. (See Fig. 2.) Among the outstanding features of the care in labor was the use of a Constant Care Unit in which Mrs. Harris stayed during labor, and the use of four pediatricians, one attending each of the quads at birth.

The protracted hospital stay was recommended to minimize the complications of multiple pregnancy — prematurity, iron deficiency anemia, toxemia, and maximum stress. While in the hospital, Mrs. Harris received iron and vitamin supplementation, diuretics, and pregestational steroids. "Actually, Mrs. Harris re-

tire team was mobilized within 30 minutes," Dr. Charles stated. Both physicians admitted that even with the elaborate planning, Mrs. Harris delivered so fast that Dr. Norman Brill, "official" photographer of the event, barely had time enough to set up his cameras.

Prior to birth of the quads, Mrs. Harris was a para i, gravida iii, abortus i. She celebrated her nineteenth birthday during confinement at Michael Reese. "Although there is a history of twin births on both sides of the Harris family," Dr. Charles stated, "there is no hereditary basis for multiple births resulting from fertilization of a single ovum. It is merely a happy aberration of nature."

Chicago Heart Association Completes Massive Screening Program



AT THE CHICAGO Jewish Academy, Dr. Milton H. Paul (left) supervises the screening of students as the head of the Academy looks on.

More than 50,000 Chicagoland high school students have just completed a unique screening program administered by the Chicago Heart Association.

Through a grant by the Illinois Department of Public Health, the Association initiated the study to develop and experiment with a technique to screen large numbers of students, at a rapid-rate, for possible cardiac abnormalities manifested by acoustical phenomena. The work was carried on by the Heart Screening Program Committee of the CHA under the chairmanship of Dr. Jacques Smith and a staff of physicians, nurses and educators.

Among the groups supporting the project were the medical societies of Chicago, Lake and Du Page Counties together with the Child Health Committee of the Illinois State Medical Society.

Heart sounds of the students—approximately 20 per cent of the tri-county high school population—were recorded in their schools by trained technicians. The recordings were listened to by two independent cardiologists. A clear delineation was made on pre-coded forms as to negative readings, functional murmur,

technically unsatisfactory or suspect for organic heart disease requiring recall.

Based upon the findings of the heart specialists students were recalled for physical examination to verify suspicions of a possibly significant murmur. Emphasizing its program as "case find"—all students who were re-examined and found to have significant murmurs were referred to their physician for medical assistance. Complete recall statistics are not available at this time.

The program just completed followed a pilot program initiated in 1959-1960 among more than 30,000 children in the Chicago elementary public school system. In that study one-half of the cases of organic heart disease found by the cardiologists were unknown before testing.

The screening technique, having proved effective in laboratory-type studies and in this field trial in the elementary schools, was inaugurated on a wide scale to furnish a firm scientific basis for the possible inauguration of this form of testing as a regular part of school checkups similar to the manner in which vision and hearing are now tested.



PAINLESS PROCESS of heart screening program is shown here at Holy Child High School in Waukegan. Technician places microphone on the chest of student. The heart sounds are picked up and fed into a special tape recorder.

ISMS Vantage Proves ADvantage



VIEW FROM THE BRIDGE—Michigan Avenue bridge, that is—shows H.M.C.S. Sioux stern-side as it "chews up" Chicago River bottom while docking Friday morning, July 12.

IT ALL BEGAN the morning of July 12 with a series of cannon shots, screeching whistles and the strains of a small but swingy Great Lakes band playing "Hi, Neighbor!" Heartfelt welcome was being extended to the Canadian destroyer-escort H.M.C.S. *Sioux* as it docked at the Michigan Avenue bridge to begin a three-day stay in Chicago as part of its reserve training cruise this year.

ISMS headquarters, located 20 stories above and just across the street, afforded a perfect vantage point from which to view the spectacle. It all might have ended as a pleasant, 10-minute interlude if someone hadn't chanced the remark, "Do you suppose they have a physician on board?"

The statement set off a chain reaction of phone calls to Dr. Lull, hurried procurement of a photographer, and a hasty visit aboard the *Sioux* that ended — one hour later — with an interesting and thoroughly enjoyable visit between Royal Canadian Navy Surgeon Lieutenant L. G. Douglas, medical officer of the

STAFF VIEWS CANADIAN DESTROYER— INTERVIEWS ITS MEDICAL OFFICER



"WELCOME ABOARD" is extended to Dr. Lull (right) by Dr. Douglas (shaking hands with Dr. Lull) and Sioux's captain, Commander Charles A. Law (left foreground).



SHIP'S BAY MEDICINE LOCKER and its contents are described by Dr. Douglas (left) as Dr. Lull listens attentively.



"LANDLUBBER'S MEDICINE" Illinois-style is surveyed briefly by Dr. Lull (right) during Dr. Douglas' visit at ISMS headquarters.

Sioux, and Dr. George F. Lull, immediate past president of ISMS.

After a quick tour of the *Sioux's* trim, well-stocked sick bay, Dr. Lull invited Dr. Douglas to ISMS headquarters for some "Chicago Hospitality." Conversation revealed that Dr. Douglas is a resident in plastic surgery at Dalhousie University in Halifax, Nova Scotia. A native of Prince Edward Island, he has been a reserve officer in the Royal Canadian Navy for 15 years.

Medical practice on the high seas or even on the Great Lakes is atypical by landlubbing standards, according to Dr. Douglas. "We have 250 young, healthy men to begin with," he said. "Our chief responsibility is keeping them this way."

What's the most common condition seen in the *Sioux's* sick bay?

Seasickness?

Accidents?

Guess again—it's *dermatitis*!

"Almost every sailor contracts a dermatitis during his 'hitch,'" Dr. Douglas explained. "It most likely is a contact problem due to the uniforms. A regimen of Benadryl®, Vioform® topically, and final resort to corticosteroids topically usually affords relief."

Next on the list of seafarers' ills is upper respiratory tract infections, followed by accidents. "Seasickness also gets the best of us

from time to time," Dr. Douglas admitted, and added, "the condition is not to be taken lightly. A seasick sailor is not a fighting sailor and hence a military hazard. Then too, emesis can be so intense that severe dehydration occurs, requiring I.V. fluids to prevent death."

The *Sioux's* sick bay is a tiny but well-arranged cubicle with bunk provisions for two patients. "We even can do emergency appendectomies like in the movies," Dr. Douglas declared, "but being only a few hours from shore we rely a great deal on land-based medical facilities to handle major problems."

One constant problem is the fact that not all Canadian Navy vessels are staffed with physicians. "Some carry only medical assistants, skillful in treatment of day-to-day problems but weak in diagnosis," Dr. Douglas explained. "A recently encountered case of rheumatic fever, difficult for the non-M.D. to diagnose, bears out my point," he added.

As Dr. Douglas' visit drew to a close, he commented that "Our reception in Chicago was the greatest. No place that we have visited made us feel more at home. It will remain one of the high points of our cruise."

And as the IMJ Staff settled back to get out an issue, one eye was cocked toward the window for the next exchange of international good will — and the next story — that docks.

Conditions Aggravated by Inhalation of Cold Air

Prophylaxis with a Face Mask That Preheats Inhaled Air

LOUIS A. TERMAN, M.D., Chicago

INHALATION OF COLD AIR, especially if accompanied by forceful wind, may cause great distress to many persons afflicted with a variety of medical problems. This is particularly true in those suffering with coronary insufficiency, asthma, emphysema, cold allergies, chronic bronchitis, sinusitis, and other respiratory and cardiac disturbances. In addition, there are those who have permanent tracheotomies, histamine cephalgia, and cryoglobulinemia, who find inhalation of cold air distressing.

For this reason, the author has long been interested in devising a method which would alleviate the discomfort of these susceptible individuals. After much investigation and experimentation, a face mask was developed which preheats the air before it enters the respiratory tract.

The purpose here is to give a cursory review of the literature on the physiology involved in the inspiration of cold air; to present a report of a pilot study on the newly developed face mask; and to discuss the clinical indications for use of the mask in 30 patients and the results.

Cold weather will return in a few months — a disabling situation to many patients with asthma, angina, chronic bronchitis, and other conditions aggravated by cold air. In this article Dr. Terman describes his results with a unique face mask that preheats cold air, giving many of these patients new freedom of activity and freedom from symptoms during the winter.

Physiology

The exact mechanism responsible for the changes that take place because of cold air inhalation is not yet fully understood. From the work and studies thus far, however, one may conclude that the physiologic changes fall into two categories: systemic or biochemical, and local or physical. Nevertheless, while still causally enigmatic, the clinical results in both categories are angina in the patient with coronary insufficiency; asthma in the asthmatic; dyspnea and substernal pain in the patient with pulmonary and respiratory problems; and even shock in those afflicted with types of cold allergies. The systemic or biochemical mechanism involved seems to be a histamine-like substance released in a free form upon exposure to cold.

Staff Member, Columbus Hospital, Chicago,
Illinois.

In an extensive treatise on histamine, Horton¹ credits Code and MacDonald,² Rose,³ and others, to the effect that histamine is a normal constituent of human blood and is found primarily in granular leukocytes. Horton stated that the manner in which histamine is held in the granular leukocytes and in fixed cells of the body is not known. He stated, however, that the rapidity with which it can be liberated, would suggest that it is not permanently bound to the cellular protoplasm. Furthermore, Horton called attention to the fact that the presence of histamine in the bound state in granular leukocytes and in fixed cells, is not manifested by clinical signs and symptoms, but is when released in its free form.

Horton also pointed out that the administration of histamine induces an increase in oxygen consumption and basal metabolic rate, which ceases after the drug is withdrawn. He also observed cardiographic changes affected by histamine, such as depression of the T wave amplitude in some leads, sometimes in all leads, or inversion of the T wave. In a series of 25 patients studied by Peters and Horton,⁴ the effect of histamine on the T waves disappeared within 5 to 15 minutes after administration of the drug was stopped.

There has also been much basic study concerning the action of histamine on the glands of internal secretion. This has included its effect on both man and animals. In animal experiments it has been found that histamine metabolism in animals seems to be influenced by certain of the endocrine glands. According to Horton,¹ the observations of Rose and Browne,⁵ and Marshall,⁶ revealed an increase in histamine in the skin and tissues of the rat after adrenalectomy. On the other hand, Horton cited Gotzl and Dragstedt⁷ as having reported a decrease in histamine in the tissues of the rat after thyroidectomy.

It has been definitely demonstrated that histamine induces the liberation of epinephrine from the medullary portion of the suprarenal gland. This has been established in bioassay measurements of the catecholamines for diagnosis in suspected cases of pheochromocytoma and in actual demonstrated cases. In these patients there is a dramatic and sudden rise in blood pressure, owing to the extreme secretion of epinephrine, one of the three catecholamines

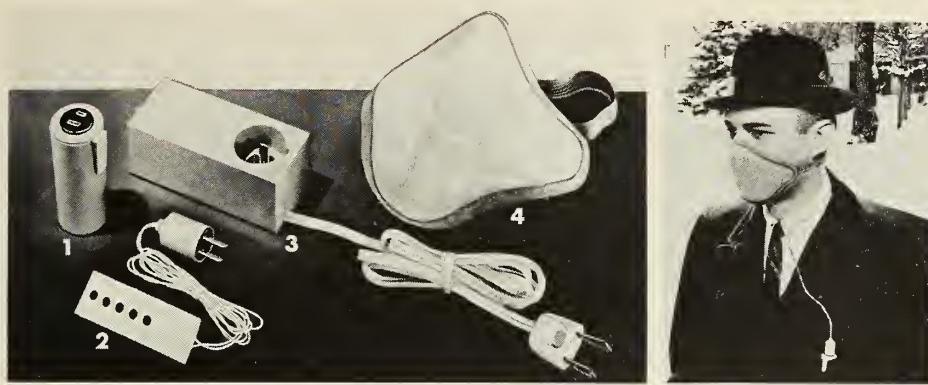
in the body of physiologic importance. This has been well established in the reported findings of Kvale, and associates,^{8,9} Roth and Kvale^{10,11} and others, and signifies a paradoxical histamine reaction.

Experimental data reported by Arnett and Watts,¹² reveals that a significant increase in epinephrine and norepinephrine excretion occurs during exposure to cold. This significant increase during exposure to cold, supports the idea that the sympathoadrenal mechanism is involved in the control of body temperature when exposed to low temperatures.

According to Horton,¹ it was suggested by Thorn and associates,¹³ that the action of histamine on the cortex of the suprarenal gland can probably be indirectly measured by the response of the eosinophils in the blood. This response, according to Horton, is considered a most sensitive indication of the release of steroids from a functioning suprarenal cortex. He stated further, that it appears as though the cortical discharge of steroids in humans occurs more promptly after administration of histamine than after any other drug thus far tested. Many phenomena seen after clinical administration of cortisone and ACTH, Horton stated, have also been observed after the clinical use of histamine, such as, a sense of well-being with a tendency toward euphoria, increased appetite, and a feeling of warmth, particularly in the extremities.

Sensitiveness to Cold

The intimate relationship of histamine to the sensitivity of certain individuals to cold and the precipitation of various conditions by exposure to cold, has been widely discussed in recent literature. Pertinent to this is the statement of Roth and Horton,¹⁴ that "With the introduction of histaminase to this country by the Winthrop Chemical Company we decided to test further our hypothesis that a histamine or histamine-like substance was the etiologic factor in hypersensitivity to cold." These authors reported a case of a patient who presented himself at the Mayo Clinic, complaining of vague pain of the precordia, shortness of breath on inspiration of cold air, a history of collapse when exposed to cold air and relief on covering his head with a coat, thereby



WEATHER GUARD HEAT MASK. Parts in left photo are (1) Battery, which clips in pocket, provides up to $3\frac{1}{2}$ hours of continuous use; (2) Heating element; (3) Battery recharger, which plugs into 110 V. A.C. outlet; and (4) Mask, of soft, porous material to permit maximum exchange of air. At right, the mask as it looks in use.

breathing in warmer air. The patient's electrocardiographic findings were normal, the basal metabolic rate -12 per cent, and neurologic examination was objectively negative.

It was further stated by Roth and Horton that in 1932, Horton and Brown¹⁵ reported on the histamine-like effect of cold on gastric acidity. They stated that this was the first description of this phenomenon, and it was demonstrated that there was a similarity in response to cold and to injections of histamine.

We have also the findings of Hoff and Geddes,¹⁶ that when portions of the myocardium are cooled, at temperatures above freezing, there is progressive lengthening of the Q-T interval, and a growing inversion of the T wave.

Along these same lines are the findings of Murray.¹⁷ His studies on the effect of inspiration of cold air on the hearts of normal dogs, normal humans, and humans suffering from angina pectoris, showed that exposure of these subjects to cold air may precipitate angina pectoris. The purpose of Murray's study was to determine whether angina was aggravated by or resulted from inhalation of cold air rather than from external contact with it.

For his animal studies, Murray used normal anesthetized dogs. These dogs were allowed to inhale air with a mouth delivery temperature of -10° F. For this a positive pressure breathing apparatus was used. The results showed that in spite of a 5° F fall in temperature of left atrial blood, no significant electrocardiographic changes were seen. In his studies on human subjects, Murray selected 12 young, healthy males with normal resting electrocardiograms. These individuals inhaled air with a tempera-

ture of -10° F from a machine similar to the positive pressure breathing apparatus used on the dogs. Then Murray used 12 patients with classic angina pectoris and normal resting electrocardiograms. These patients inhaled air at 0, -5 , and -10 F. Of these latter 12 patients, three had negative double Master's tests but the coronary arteriograms were grossly abnormal. In all patients, S-T depressions of more than 2 mm. occurred in one or more leads, at -10 F. In 5 of the patients, angina developed which was relieved on stopping the test. Therefore, it appears evident that the inhalation of cold air can produce electrocardiographic changes in angina patients, but not in normal individuals.

The foregoing data would seem to give credence to the hypothesis that these changes may be caused by generalized vasoconstriction or cooling of pulmonary blood. In the opinion of Murray, cold induces a general reflex vasoconstriction and this places an additional work load upon the heart. He feels that the reflexes may originate in the receptors of the upper respiratory tract.

Description of Mask

Because of the clinical implications of such findings as described above, and of those of the present author, a face mask to warm the air inhaled by patients suffering from a variety of conditions aggravated by inhalation of cold air, was indicated. Such a mask was recently developed by the author. The unique features of the mask are that it is an efficient palliative appliance which preheats the air before it

enters the respiratory tract and is made of a sufficiently porous material not to interfere with and to insure a normal carbon dioxide-oxygen balance.

The mask* is worn over the nose and mouth. It has a small pocket situated just between the nose and mouth, which holds a removable heating element that is heated via a rechargeable battery worn in a patient's pocket or dress. This heating element warms the air to a comfortable degree of temperature, thus avoiding the usual physiologic changes caused by the inhalation of cold air.

Material Used for Present Study

The author's pilot study consisted of 30 patients. The ages ranged from 8 years to 75 years. There were 24 males and 6 females. In the series 15 patients had coronary disease; 5 were asthmatics; 7 had emphysema; one patient had histamine cephalgia; one had a permanent tracheotomy; and one suffered cold allergy. All of these patients suffered in some way or other in cold weather. Some suffered pain, dyspnea, and other discomforts. Some patients were even incapacitated by inhalation of cold air to the point where their normal everyday activities and pursuits which necessitated exposure to cold or wind had to be curtailed or stopped completely.

Results of Study

After using the mask during an entire severe winter, remarkable relief of their distress in cold weather and on windy days was observed and reported by 29 of the patients in the series. The one patient demonstrating only slight relief was a 75 year old man suffering simultaneous coronary insufficiency, asthma, and emphysema.

Further observations are awaited on several patients not included in the pilot study; some with permanent tracheotomies, one with cryoglobulinemia, and one with cold allergy, all of whom began wearing their masks too late during the period of this study for accurate appraisal and evaluation at this time. Together with these, the author is continuing to assemble

and study the results in many more patients. In a future article, he will elaborate on this preliminary report; discuss the clinical findings in a larger group of patients with hypersensitivity to cold, wearing the heat mask; classify these patients according to their particular co-existing upper respiratory or cardiac disturbance; and present statistics regarding the results of wearing the mask.

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*Available as the Weather-Guard Heat Mask®, Carmen Commodities Corporation, Chicago.

Immunologic Response to Oral Poliomyelitis Vaccine

SAMUEL L. ANDELMAN, M.D., M.P.H., *Chicago*

STUDIES DESIGNED TO TEST the efficiency of oral poliomyelitis vaccine have yielded different results in various environments. On the basis of the antibody response of vaccinated children who lacked antibodies before vaccination, the oral vaccine was found to be only 50 to 60 per cent¹ effective in some studies. In other studies, effectiveness was 90 to 100 per cent.² In general, infants and children respond better than adults. It is generally agreed that the immune status of the child prior to feeding has an important bearing on the response.

Throughout the United States, there are currently millions of children who have received varying numbers of injections of Salk vaccine. It would seem important, therefore, to determine the antibody response in children who have already received one to two injections of Salk vaccine when Sabin vaccine is given to them. In testing the antibody response in children to the Sabin oral vaccine, the present study indicates that an answer to this situation has been obtained.

Procedure

The children in this investigation, for the most part, attended the infant welfare clinics of the Chicago Board of Health. Prior to administration of the Sabin vaccine, four to five ml. of blood was obtained to determine the antibody titer to each type of poliomyelitis virus. Simultaneously, a rectal or fecal swab was made and placed in Hank's medium. In 30 days, a second blood sample was drawn to determine the antibody response. A total of 437 children were included in the study.

Commissioner of Health, City of Chicago.

Fifty-four children under one year of age had received no Salk vaccine. In twenty who received type 1 Sabin vaccine, one child showed a decreased titer, while two remained the same. The remainder showed increases of 4 to 128 times the original titer.

In sixteen children who received type 2 Sabin vaccine, one showed a decreased titer, two remained the same, with the remainder showing increases 8 to 256 times that of the original titer.

In eighteen children who received type 3 Sabin vaccine, one showed a decreased titer, two remained the same, while the remainder showed increases of 2 to 256 times that of the original titer.

Of the aforementioned fifty-four children, only six had titers as low as 1 to 4 after receiving the Sabin vaccine.

Sixty-two children under one year of age had received one injection of Salk vaccine prior to administration of Sabin vaccine. Of fifteen children who received the type 1 Sabin vaccine, none showed a decreased titer, two remained the same, while the remainder showed increases 2 to 256 times that of the original titer.

In twenty-four children who received the type 2 Sabin vaccine, one remained the same, with increases of 2 to 256 times that of the original titer occurring in the remainder.

In twenty-three children who received the type 3 Sabin vaccine, one showed a decrease, two remained the same, with increases 4 to 256 times that of the original titer ensuing in the remainder.

Of the sixty-two children who received one injection of Sabin vaccine, only one had a titer

TABLE 1.

Increase in Antibody Titer with Sabin Vaccine in Children by Number of Salk Injections Given Previously					
Ratio of Increase	No. of Children	No. of Salk Injections			Un- known
		1	2	0 known	
.125	1	0	1	0	—
.250	7	4	2	1	—
.500	13	3	7	3	—
1	77	20	38	18	1
2	27	9	12	6	—
4	18	5	6	5	2
8	38	13	16	9	—
16	46	16	20	9	1
32	57	14	26	17	—
64	39	12	13	14	—
128	77	26	29	22	—
256	37	15	11	11	—
	—	—	—	—	—
	437	137	181	115	4
Mean ratio of increase	56.98	64.27	48.23	63.82	—

as low as 1 to 4 after the administration of the Sabin vaccine.

Ninety-two children under one year of age had received two injections of Salk vaccine prior to administration of the Sabin vaccine.

In twenty children who received the type 1 Sabin vaccine, two remained the same, with increases of 2 to 256 times that of the original titer taking place in the remainder.

In thirty-three children who received the type 2 Sabin vaccine, three showed a decreased titer, four remained the same, while increases of 4 to 256 times that of the original titer took place in the remainder.

In thirty-nine children who received the type 3 Sabin vaccine, one showed a decrease, six remained the same, whereas increases of 2 to 256 times that of the original titer occurred in the remainder.

In only one child, after receiving the Sabin type 3 vaccine, was the titer as low as 1 to 4.

Children over one year of age showed similar findings.

Thus, in 437 children of all ages, of 115 who had received no Salk injections, four children showed a decreased titer, eighteen remained the same, while increases of 2 to 256 times that of the original titer ensued in the remainder.

In 136 children who had received one injection of Salk vaccine prior to administration of the Sabin vaccine, seven showed a decreased titer, twenty remained the same, while increases of 2 to 256 times that of the original titer occurred in the remainder.

In 186 children who had received two injections of Salk vaccine prior to the administration of the Sabin oral vaccine, ten showed a decreased titer, thirty-eight remained the same, while increases 2 to 256 times that of the original titer took place in the remainder.

In those instances in which serum conversions or increases in antibodies did not occur, investigation of the rectal swab taken prior to vaccination was carried out. Of twelve specimens investigated, three were found in which the type 3 poliomyelitis virus was found. In one instance, a non-poliomyelitis virus was discovered but not identified.

Discussion

It appears from the studies made on 437 children that a rise in antibody titer after the administration of Sabin oral vaccine occurs in children who had previously received one or two injections of Salk vaccine, as well as in those children who had received no injections. Gains in antibody titer were sufficient to produce protection against all three types of poliomyelitis, regardless of whether the children previously had received Salk vaccine.

TABLE 2.

Increase in Antibody Titer in Children by Type of Sabin Vaccine					
Ratio of Increase	No. of Children	Type	Type	Type	Un-
		1	2	3 known	known
.125	1	0	1	—	0
.250	7	2	5	—	0
.500	13	5	2	—	6
1	77	40	16	—	21
2	27	6	14	—	7
4	18	4	6	—	6
8	38	13	18	—	7
16	46	12	17	—	16
32	57	20	24	—	13
64	39	9	15	—	15
128	77	26	20	—	31
256	37	9	16	—	12
	—	—	—	—	—
	437	146	154	134	3
Mean ratio of increase	56.98	49.42	57.60	65.60	—

There are many communities in which a great majority of the children and adults have received three or more injections of Salk vaccine. The administration of at least one booster dose of vaccine is advisable for those who have received only three Salk injections. One procedure in administering a booster dose is to give one injection of Salk vaccine. Another is to boost the immunity by administering three doses of monovalent oral vaccine so that immunity to all three types of virus will be produced. The latter may be advantageous since it will immunize the gut and thereby interrupt the carriage and excretion of poliomyelitis viruses in the community.

In addition, there are problems in the administration of oral vaccine, such as spitting by the infant. This leads to uncertainty as to the actual amount of vaccine that was ingested.

From a public health standpoint, especially when city-wide programs are to be carried out, cost has been considered. For example, it is necessary to take the cost of droppers into account. More than one dropper may be needed for each child, for if a child spits out the first dose, a new dropper is needed to administer a second dose. Furthermore, three office visits will be required, one for each type of vaccine.

Sufficient knowledge has been gathered to demonstrate the effectiveness and safety of the Sabin oral vaccine. There was no evidence in this study that the live virus administered in the Sabin vaccine spread to other members of the family, but undoubtedly it did occur. The Sabin vaccine has the advantage of producing immunity in a shorter period of time, since a full course of four injections of Salk vaccine may require a period ranging from one and a

half to two years. The Sabin vaccine also produces local immunity in the gut and throat. Hence, in the face of an impending epidemic, the administration of Sabin vaccine on a community-wide basis appears advisable.

Conclusions

1. Tests of the Sabin oral vaccine showed the same response, on the average, in children who had received one or two injections of Salk vaccine on previous occasions as in those who had received none.
2. The response to all three types of Sabin vaccine was about the same.
3. Children under two years of age did not respond better than children older than two.
4. From this study, it appears that the most favorable time to immunize children is when they are less than one year of age.
5. For community-wide immunization programs taking place before the poliomyelitis season, Sabin oral vaccine can be more conveniently and expeditiously utilized than Salk vaccine, with equally good results as determined by increasing antibody titers.

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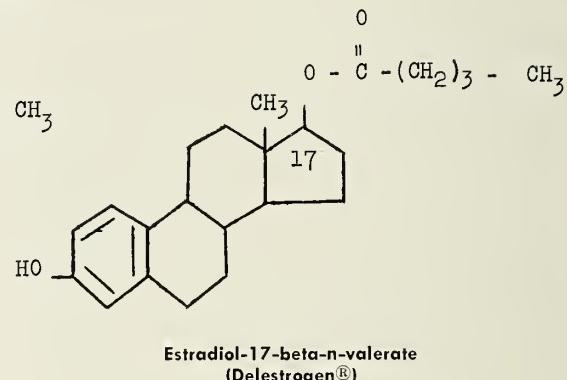
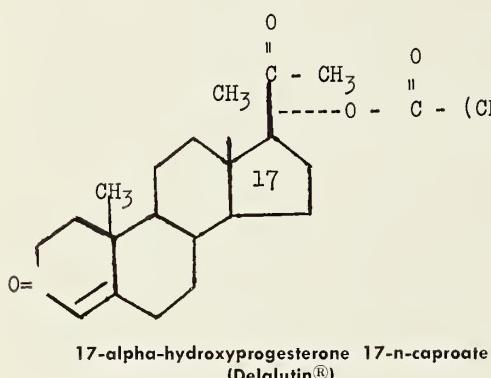
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Indications for a Long Acting Combined Estrogen-Progesterone Preparation

MARTIN W. GREEN, M.D., F.A.C.O.G., F.I.C.S.
River Forest, Illinois

FIGURE 1



Introduction

Combined estrogen-progestogen therapy has been employed for many years for the correction of disorders in the menstrual cycle. During recent years, some of the long-acting esterified hormones originally synthesized by Junkmann^{1,2} have been investigated clinically in menstrual and related disorders, and a number of reports of their successful application have appeared in the literature.³⁻¹³ These reports have dealt principally with the estrogen, estradiol valerate (Delestrogen[®])^{*} and the progestogen, 17-alpha-hydroxyprogesterone caproate (Delalutin[®]).^{*} The molecular configurations of these hormones are shown in Fig. 1. They are usually administered in combination by intramuscular injection as a single preparation.^{*} A number of these reports are referred

to in Table 1. A brief description of the action of the long-acting estrogen-progestogen combination used in the studies referred to in Table 1, together with the separate actions of its component hormones, follows.

When estradiol valerate and hydroxyprogesterone caproate are injected together, abnormal uterine bleeding is soon controlled. When this combination is administered to an actively bleeding patient, bleeding stops within 6 to 36 hours (an average of 18 hours), and withdrawal bleeding will not occur until after 10 to 15 days (an average of 12 days). When estradiol valerate alone is injected into patients who are bleeding actively, the bleeding slows within about 6 hours and ceases in 18 hours, on the average. Hydroxyprogesterone caproate acts to induce an adequate endometrial secre-

*Supplied as Deluteval[®] by Dr. E. C. Reifenstein, Jr., of the Squibb Institute for Medical Research, New Brunswick, New Jersey. Each cubic centimeter of this medication contains 125 mg. hydroxyprogesterone caproate (Delalutin[®]) and 2.5 mg. estradiol valerate (Delestrogen[®]) in sesame oil.

Chairman, Department of Obstetrics and Gynecology, Westlake Hospital, Melrose Park, Illinois; Vice Chairman, Department of Obstetrics and Gynecology, Oak Park Hospital, Oak Park, Illinois.

TABLE 1.

Clinical Results with Estradiol Valerate and Hydroxyprogesterone Caproate in Combination

Condition Treated	Results	References
Primary and secondary amenorrhea	Regular periods induced in 33 of 34 patients	Finkler ³
Dysmenorrhea	Relief of Pain	Gold and Cohen, ⁴ Kaiser ⁵
Uterine hypodevelopment	Good results* in 4 of 6 cases.	Rutherford <i>et al.</i>
Dysfunctional uterine bleeding	Cessation of bleeding in 40 of 45 patients Successful trial in 161 patients, with cessation of bleeding in 6 to 36 hours	Bobrow <i>et al.</i> Thomas ⁸
Endometriosis	Amenorrhea induced in all, and dysmenorrhea and pelvic pain benefitted in nearly all, of 35 patients	Thomas ⁹

*Success was defined as achieving a 1:3 ratio between the cervical and endometrial canals from a ratio of 1:2 or less.

tory pattern. After the intramuscular injection of this agent, the patient usually has an interval of 12 or 13 days before the onset of withdrawal bleeding, which lasts for an average of 5 days.

Finkler has reported success in the treatment of dysmenorrhea by the combined intramuscular injection of estradiol valerate and hydroxyprogesterone caproate.³ This cyclic hormone therapy induced regular menstrual periods in 33 of 34 cases of primary and secondary amenorrhea, although in 5 cases of secondary amenorrhea additional therapy was occasionally required because of the recurrence of amenorrhea after several months of spontaneous cyclical menstruation.

Two dosage schedules were used by Finkler in this study.³ With the low-dosage schedule (10 mg. estradiol valerate initially, 5 mg. estradiol valerate and 125 mg. hydroxyprogesterone caproate 2 weeks later), bleeding with desquamation of a secondary endometrium occurred 7 to 14 days after the final dosage; on the high-dosage schedule (20 mg. of estradiol valerate initially and 5 mg. estradiol valerate and 250 to 375 mg. hydroxyprogesterone caproate 2 weeks later), bleeding occurred within 12 to 14 days after the final injection.

In a study of uterine hypodevelopment, Rutherford *et al.* treated 6 young women with demonstrable failure of uterine development by means of intramuscular injections of estradiol valerate and hydroxyprogesterone caproate.⁶

Judged by the criterion of raising the ratio between the cervical and endometrial canals to 1:3 from 1:2 or lower, the therapy was successful in 4 cases, in one of which the initial ratio had been 1:1. In all 6 cases, smears indicated good estrogenic activity in the follicular phase after therapy.

Thomas, in a study of 35 cases of endometriosis, was able to induce amenorrhea in all patients and to relieve pelvic pain in most of them.⁹ The best response was obtained in patients treated with these combined hormones for more than 3 months. There were no serious complications, and the few undesirable side effects were negligible.

In another study, Thomas has reported that combined estrogen-progestogen therapy appears to provide better regulation of dysfunctional uterine bleeding than estrogen and progesterone administered separately, and that the use of the combined preparation obviates complicated multiple schedules.⁸ The same in-

TABLE 2.

Distribution of Conditions in 22 Patients with Disturbances of the Menstrual Cycle

Disturbance	No. of Patients
Amenorrhea	8*
Sheehan's syndrome	1
Postsurgical menopause	13
Total	22

*Three of these patients later proved to be pregnant.

TABLE 3.
Results with Combined Estrogen-Progestogen Therapy in 22 Female Patients

Case No.	Age (Years)	Condition	Other Therapy	Deluteval	Comments and Results
1	34	Secondary amenorrhea of 2½ months standing; pregnancy test negative	None	1 2-cc. dose	Good. Normal flow 6 days after injection; 8 normal menses since.
2	28	Secondary amenorrhea of 3 months standing; pregnancy test negative	None	1 2-cc. dose	Good. Menstruation 14 days after injection; menstruation every 28 days for 8 menses.
3	20	Amenorrhea, obesity; pregnancy test negative	Parenteral hormones previously; anorectics, Cytomel	2 2-cc. doses 8 weeks apart	Good. Menstruation 14 days after first injection, 5 days after second injection, normal, regular menstruation for 6 months thereafter.
4	30	Secondary amenorrhea of 8 years' standing	Estrogens, corticosteroids, and thyroid previously vitamins (Engran)	2-cc. doses every 28 days for 11 months	Good. Menstruation 2 weeks after first injection, menstruation after each subsequent injection.
5	27	Functional amenorrhea of 7 weeks standing; pregnancy test negative	None	1 2-cc. injection	Good. Menstruation 1 week after injection and regularly for 8 months thereafter.
6	45	Amenorrhea of 8 weeks standing; pregnancy test negative, but later proved to be pregnant	None	1 2-cc. injection	Pregnancy unaffected; normal infant at term.
7	34	Menses delayed 4 days; flashes, pelvic pressure; proved to be pregnant after 5 weeks	None	1 2-cc. injection	Pregnancy unaffected; normal infant at term.
8	30	Menses delayed 21 days; cramps; flashes, pelvic pressure; proved to be pregnant after 4 weeks	None	1 2-cc. injection	Pregnancy unaffected; normal infant at term.
9	46	Sheehan's syndrome for 11 years after post partum hemorrhage; allergic dermatitis	Corticosteroids, antihistamines, thyroid	2 cc. every 2 weeks for 10 months	Good. Corticosteroid dosage needed to control dermatitis halved; general outlook of patient improved.
10	39	Postsurgical menopause of 4 months' standing (depression, flashes, migraine, vague gastro-intestinal symptoms)	Multivitamins (Engran), Cafegot; previously oral and parenteral endocrines	2 cc. until improvement gradually decreased frequently to every 7 weeks does better on 1 cc. every 4 weeks	Good. Marked improvement; migraine less frequent and more amenable to treatment, complained of breast tenderness when receiving at 2 week intervals.
11	50	Postsurgical menopause of about 6 years' standing; anxiety reaction; duodenal ulcer; headache, fatigue, flashes	Ulcer regime; previously, oral and parenteral estrogens	2 cc. every 4 weeks for 10 months	Good subjective improvement in fatigue, headache, flashes.
12	40	Postsurgical menopause of about 7 months' standing; flashes, insomnia, constipation, loss of libido	Vitamin B complex; previously, oral and parenteral estrogens	1 cc. every 4 weeks for 10 months	Good. Insomnia and constipation disappeared, flashes relieved, libido normal. Breast soreness 4 days after injection.
13	50	Postsurgical menopause of 4 months' standing; headache, bloating, insomnia	Vitamins	2 cc. every 4 weeks for 8 months	Good. All symptoms relieved except headache (not migraine type)
14	42	Postsurgical menopause of 6 months' standing; flashes, obesity, constipation, loss of libido	Vitamins, anorectics; previously estrogens	2 cc. every 5 weeks for 6 months	Good. All symptoms relieved.
15	48	Postsurgical menopause of 1 years' standing; flashes, headache, constipation, insomnia	Anorectic	2 cc. as needed (about every 5 weeks) for 8 months	Good. Symptoms controlled.

TABLE 3 (CONT'D.)

Case No.	Age (Years)	Condition	Other Therapy	Duration	Comments and Results
16	38	Postsurgical menopause of 6 months' standing; migraine	Multivitamins; previously, oral and parenteral estrogens, progesterone, compound E, tranquilizers	2 cc. every 5 weeks for 10 months	Excellent. No migraine (previous therapy had not helped). Breasts tender 2 weeks after injection.
17	45	Postsurgical menopause; migraine	Previously, oral estrogens	1 cc. every 4 weeks for 10 months	Good. Insomnia and constipation disappeared. flashes relieved, libido normal. Breast soreness 4 days after injection.
18	50	Postsurgical menopause of 8 months' standing; constipation, headaches, flashes, loss of libido	Multivitamins (Engran); previously, oral and parenteral hormones	1 cc. every 5 weeks for 14 months	Excellent. All symptoms disappeared.
19	47	Postsurgical menopause of 4 years' standing; headache, insomnia, flashes, fatigue	Probanthine; previously, oral and parenteral hormones	1 cc. every 4 weeks for 12 months	Good. All symptoms disappeared except fatigue, which was improved.
20	50	Postsurgical menopause of 1 year's standing; involitional melancholia, crying spells, depression, severe fatigue, insomnia, loss of libido	Ipral, Vesprin to last 4 months	2 cc. every 4 weeks for 14 months	Good. All symptoms disappeared except for moderate insomnia and occasional crying spells
21	45	Postsurgical menopause of 3 years' standing; headaches, flashes, rose fever, dizziness	Antihistamines	1.5 cc. as needed for 9 months	Excellent. Disappearance of all symptoms.
22	44	Postsurgical menopause of 16 months' duration; headaches, fatigue	None	1.5 cc. as needed (4 to 7 weeks) for 9 months	Good. Abatement of all symptoms.

vestigator also calls attention to the frequently overlooked fact that the administration of estrogen alone rarely corrects a bleeding problem unless sufficiently large and properly timed doses of progesterone are also given. Thomas has also advised that combinations of the ovarian steroids are ideal, but that, to be useful, they must provide rapid hemostasis and an adequate rest interval before the withdrawal bleeding begins.

Materials and Methods

The 22 patients in the present series presented various disturbances of the female reproductive cycle. They ranged in age from 20 to 50 years; 3 were from 20 to 29, 6 were from 30 to 39, 9 were from 40 to 49, and 4 were 50 years of age. The conditions treated are shown in Table 2.

All of the patients were treated with estradiol valerate and hydroxyprogesterone caproate in a combined formulation. The dosage of this material and other medication used in each case are shown in Table 3.

Results

The data for each of the 22 patients in the present series are summarized in Table 3. Of the 8 patients with amenorrhea, 5 experienced the onset of menstruation within 6 to 14 days after a single injection of 2 cc. of the combined hormone formulation. Only 2 of these patients (Cases Nos. 3 & 4) required additional injections. All 3 patients who did not respond (Cases Nos. 6, 7 & 8) were later proved to be pregnant. It is of considerable interest that in none of the latter 3 cases was the pregnancy affected by the hormone therapy. It is possible, indeed, that the combined hormone preparation investigated here may offer usefulness as a presumptive test for pregnancy.

The single case of Sheehan's syndrome (necrosis of the pituitary after severe postpartum hemorrhage) and allergic dermatitis (Case No. 9) responded well to the combined hormone therapy. The general outlook of the patient improved and, significantly, the dosage of corticosteroids required to control the dermatitis was reduced by 50 per cent.

The 13 patients who demonstrated postsurgical menopause of from 4 months to 6 years duration presented the usual symptoms—most commonly hot flashes, headaches, insomnia, and constipation. Results were rated as *excellent* in 2 of these cases and as *good* in the other 11 cases; there were no failures. For example, of the 9 patients who complained of hot flashes, all were relieved, 3 of them completely; of the 7 patients who complained of headaches, all were improved, 3 of these entirely; of the 5 patients with insomnia, 2 were entirely relieved, and in the other 3 the condition abated; 4 patients complained of loss of libido, and 3 of them returned to normal, the other reporting improvement.

Migraine appeared in 3 patients, all of whom were relieved, 2 of them completely. One of the latter (Case No. 16) had not been helped by earlier treatment with oral and parenteral estrogens and progesterone, compound E, and various tranquilizers.

Discussion

The safety of the estrogen-progestogen preparation is attested to not only by the absence of effects on the course of pregnancy in the 3 patients who proved to be pregnant, but also by the infrequency of untoward side reactions. Four of the patients, however, complained of tenderness of the breasts or of pain at the site of the injection. In one patient (No. 10), the breast tenderness occurred when 2 cc. injections were given every 2 weeks, but not when they were given less frequently. Patient No. 11, while relieved of hot flashes, fatigue and headaches by this combined hormone therapy, continued to suffer from a duodenal ulcer and anxiety reaction.

Summary

Twenty-two patients with various disturbances of the female reproductive cycle were treated with combined estradiol valerate and hydroxyprogesterone caproate (Deluteval). Eight of these patients were treated for amenorrhea, and in 5 of these menstruation was

induced; the other 3 patients proved to be pregnant. In none of the latter 3 cases was the pregnancy adversely affected by the combined hormone therapy. These results indicate a possible use for this preparation as a presumptive test for pregnancy.

One patient was treated for Sheehan's syndrome and allergic dermatitis. This patient's general condition was improved, and the amount of corticosteroids needed to control the dermatitis was reduced by one-half.

Of 13 patients with postsurgical menopause, all were relieved of symptoms such as hot flashes, headaches, insomnia and constipation.

Undesirable effects were unimportant and controlled by adjustment of the dosage schedule.

The administration of estradiol valerate and hydroxyprogesterone caproate in a combined formulation, such as Deluteval, is an effective, safe, and convenient means of supplying these female sex hormones to patients with disturbances of the menstrual cycle.

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Traumatic Neurosis: Is It Compensable?

JOSEPH T. LAVORCI, A.B., J.D., Chicago

As a preliminary to this discussion of whether traumatic neurosis is or is not compensable, we must recognize that the philosophy and underlying goals of the Workmen's Compensation System are (1) to compensate the worker, dependents or survivors, for at least part of the wage loss and medical expenses incurred as a result of an industrial injury, (2) to rehabilitate the employee so that he can re-enter the labor market and become a productive member of society, (3) to prevent the injured worker from becoming a public charge, and (4) to shift to industry the responsibility and the costs of personal injury claims directly or indirectly related to work-environment.

We must recognize that the courts by their liberal interpretations of the state compensation statutes are continually broadening the concept of "liability without fault."

We must further recognize that the employer takes an employee "as is" without any warranty as to previous state of health, whether known or unknown. The employer takes his employees with their mental, emotional, glandular, and other physical defects and disabilities. Hence it is no longer necessary for the employee to show that the injury was the sole cause of the disability, or that the work was the sole cause of the injury, to obtain an award. It is sufficient if the work precipitated, aggravated or accelerated a pre-existing condition or disease, or if it was a contributory factor in the injury or the disability.

President, Chicago Society of Medical Jurisprudence; member of the Medico-legal Committee, Chicago Bar Association, and of the Workmen's Compensation Committee, Illinois State Bar Association.

From a talk at the mid-year meeting of the Illinois Bar Association, January 23, 1963, Chicago.

In view of this, it is easy to understand the court's ruling that a neurosis, or any other mental or nervous ailment, proximately resulting from an accident or injury in the course of employment and causing disability, is compensable, and the rule applies whether the neurosis is of functional origin or has an organic or structural basis, and whether it was caused entirely from the physical injury or from a mental condition arising out of such injury.

Accordingly, mental disability, insanity, hysteria and its various manifestations, such as hysterical blindness or paralysis, neuritis and neurasthenia, caused by or attributable to such an accident or injury, are compensable. These principles of law are enunciated in the following Illinois cases:

1) In the case of U.S. FUEL COMPANY Vs. IND. COM. OF ILL. 313 Ill. 590, 145 N.E. 122 (1924), the petitioner suffered injury to his spine, consisting of a fractured vertebra. He subsequently reported that he could not straighten up and walked in a stooped position. Although physicians testified his injury was completely healed and his disability, if any, was due to mental disorder following the injury, COURT HELD: The petitioner was entitled to permanent disability award and stated, "It is immaterial whether the condition is caused by a physical injury or a mental disorder resulting from the injury. Where an employee has an honest, fixed, definite and continuing belief that he is suffering severe bodily pain, and that he is in such a disordered condition that he is unable to work and walks in a stooped position, and all the foregoing conditions have been brought about by a severe accidental injury, he is as much entitled to compensation as if he were in fact totally and permanently disabled by such accidental injury . . . Such mental disease or disorder may not only render the petitioner totally disabled for work, but such condition may also be permanent."

2) In the case of HARRIS COAL MINING CO. Vs. IND. COM. OF ILL. 315 ILL. 377, 146 N.E. 543 (1925), COURT HELD: Evidence that an employee received an electric shock from a cable carrying a high voltage which was sufficient to render him dazed or unconscious for a brief period, and that since receiving

the shock he has been unable to perform manual labor of any kind because of a neurasthenia, is sufficient to justify an award of permanent disability.

3) In the case of ARMOUR GRAIN CO. Vs. IND. COM. OF ILL. 323 Ill. 80, 153 N.E. 699 (1926), COURT HELD: Where the evidence shows that an employee is unable to work and there is no improvement in his condition after a long period of confinement, an award for total and permanent disability is warranted, and it does not matter whether such disability is a direct result of a physical injury or from a mental disorder resulting from the injury.

4) In the case of THE POSTAL TELEGRAPH CABLE CO. Vs. IND. COM. OF ILL. 345 Ill. 349, 178 N.E. 187 (1931), the petitioner filed an application against his employer alleging that he was struck a blow on the left temple of his superior. He reported he could not move his neck and was unable to work. His doctor testified that he was suffering from a traumatic neurosis. COURT HELD: An award of permanent total disability is justified where the injury results in a nervous condition rendering the employee unable to control the movements of his neck and unable to do any work, even though expert medical testimony reported that the total disability may or may not be permanent in character, for the employer may subsequently appear and have the award modified or set aside if, at any time in the future, the condition of the employee should improve; and it is not material whether the disability resulted entirely from the physical blow or a mental condition arising out of the injury.

5) In the case of the FORD MOTOR CO. Vs. IND. COM. OF ILL. 355 Ill. 491, 189 N.E. 498 (1934), the petitioner was injured while loading radiators into a box car. While he was stooping over to pick up a hammer he was struck on the head with a 28 lb. radiator. On the way to the hospital he collapsed. At the hospital he was treated for a cerebral concussion. While at the hospital he talked and behaved strangely. After three days he left. Ten days later he returned to the hospital complaining of headaches and dizziness. When he was discharged he appeared to be normal. At the hearing four doctors testified on his behalf. His family doctor testified that before the accident he was a steady and reliable worker, and was jovial and optimistic but after the accident he was nervous and irritable, became discouraged and depressed, and had no interest in his surroundings. Another doctor testified that following the blow on his head a personality change occurred; that the head injury had affected his mind, resulting in abnormal suspicion, distrust, lack of self-assurance and hostility. This state of mind he described as paranoia. Another doctor, a professor of mental diseases, testified that the petitioner was paranoid; that his condition would get progressively worse; that he could not carry on any work without supervision; that his condition was permanent. The fourth doctor, a psychiatrist, testified that the petitioner was incapable of doing any work and was suffering from a traumatic neurosis. COURT HELD: An employee is totally and permanently disabled when he is unable to make some contribution to industry sufficient to

justify payment to him of wages; and where the evidence establishes a causal connection between the injury complained of and the incapacity for productive labor, an award for disability is justified; and if there is later improvement in the employee's condition, the employer has a remedy under the statute by appearing and asking for a modification of the award.

6) In the case of EVERLYN HARPER Vs. IND. COM. OF ILL. 24 Ill. (2) 103, 180 N.E. (2) 48 (1962), Thomas Harper, an employee of A. & P. Store, sustained an injury to his back. He was subsequently operated on for a herniated disc. After the operation he was unable to perform heavy work, experienced considerable pain, was mentally depressed, and one day committed suicide. Widow filed an application against the A & P Store. COURT HELD: Compensation for the death of an employee under Workmen's Act is not barred, as a matter of law, where a compensable injury is followed by the suicide of the injured employee and where it is clearly attributable to a psychosis that results from such an injury, for under such circumstances the suicide is merely an act intervening between death and injury and not an intervening cause; nor is it necessary, in the absence of a statutory provision barring recovery unless every vestige of intent is eliminated, to assess the precise quality of the mental condition of the deceased at the time of the suicide, it being sufficient if there is a showing of clear connection between the compensable injury and suicide.

It is interesting to note that the courts in other states seem to follow the same pattern of thinking.

7) In the case of BESSIE WHITEHEAD Vs. HEENE ROOFING CO. (1949 Fla.) 43 So. (2) 464, Widow filed application against roofing company after her husband committed suicide following injuries sustained in the course of his employment. COURT HELD: Where a workman who had been a good-natured person with a phlegmatic disposition became morose and ill humored after injury which caused excruciating pain in his leg, back and head, and thereafter committed suicide by taking a mixture of potash and lye, his death was compensable within the provision of the Act. (If his action in taking the poison was the result of an uncontrollable impulse or in a delirium or frenzy, it could not be said that he was capable of forming a wilful intention to take his own life.)

8) In the case of PORTER Vs. W. HORACE WILLIAMS CO. 9 So. (2) 60 (1960), COURT HELD: Even though an accident does not produce an anatomical pathology, if the petitioner becomes disabled as a result of the accident, the injury is compensable, although the disability may be the result of hysteria, and may be traceable to mental condition and not a physical disorder.

9) In the case of BAILEY Vs. AMERICAN GENERAL INSURANCE CO. 154 Tex. 430, 279 SW (2) 318 (1955), COURT HELD: Neurosis suffered by a structural steel worker solely as a result of fright occasioned by collapse of scaffold which was suspended eight stories above the ground from which a co-worker fell to his death, was compensable.

- 10) In the case of MURRAY Vs. IND. COM. 87 Ariz. 190 - 349 Pac. (2) 627 (1960), COURT HELD: Slipping on ice, causing back injury that led to psychoneurotic conversion hysteria (psychic effect converted into a physiological phenomenon) to be compensable.
- 11) In the case of BARR Vs. BUILDERS, INC. 170 Kansas 617 - 296 (Pac.) (2) 1106 (1956), COURT HELD: Fall from window, striking and injuring back, causing conversion hysteria, to be compensable.
- 12) In the case of WRIGHT Vs. LOUISIANA GAS & FUEL CO. (1932 La. case) 140 So. 713, while unloading pipe, tools and meters onto a wagon, petitioner's foot slipped from walk plank and injured right side of body, which subsequently became totally paralyzed. Doctor's diagnosis was "hysterical paralysis" traceable to a mental condition and not a physical disorder. COURT HELD: Whether petitioner's condition was caused by a mental disorder or a physical disorder is immaterial, if either was brought on by the accident while working for his employer and in the course of his employment, it is compensable.
- 13) In the case of ANDERSON Vs. DEPT. OF LABOR (1945 Wash. case) 159 Pac (2) 397, Petitioner in accident sustained loss of leg below the knee. In application filed for additional compensation award for aggravation of disability, COURT HELD: Opinion evidence by petitioner's physician that he had developed a neurasthenia since his original accident compensable and entitled to additional compensation.
- 14) In the case of DAVID GREENBURG Vs. JACOB H. SOLOMONICK (1949) 298 N.Y. 911, 85 N.E. 57, Petitioner employed as painter fell from fire escape and suffered head injuries which caused him to become mentally ill. Admitted to state hospital. COURT HELD: Insanity resulting from injury in course of employment to be compensable.
- 15) In the case of SIMON Vs. R. H. H. STEEL LAUNDRY INC. (1953 N. J. case) 95 Atlantic (2) 446, In a workmen's compensation proceeding by steam engineer who incurred no physical injuries, but allegedly suffered complete psycho-neurotic disability as a result of explosion of steam pipe in boiler room, COURT HELD: Evidence established workman was totally and permanently disabled as the result of a neurotic condition arising out of and in the cause of his employment, and is, therefore, compensable.
- 16) In the case of KLEIN Vs. MEDICAL BLDG. REALTY CO. (1933 La. case) 147 So. 125, Petitioner allegedly injured by falling plaster. Dispute as to whether petitioner was struck by plaster, and if struck, whether the blow was so slight it did not cause any physical injury, COURT HELD: There may be recovery for post-traumatic hysteria, even where there has been no actual physical injury. And we distinguish between traumatic neurosis, where the patient has suffered physical or organic injury resulting in a nervous and traumatic hysteria, and where results from mere fright, unaccompanied by physical or organic injury, and which therefore is merely psychic or functional.
- 17) In the case of KIENSKY Vs. UNITED NEON SUPPLY CORP. (1942 N.J. case) 30 Atlantic (2) 40, Petitioner sustained acid burns in course of employment. Thereafter developed hiccoughs, pneumonia, lymphangitis, and marked personality changes into manic depressive psychosis. Seven months later committed suicide. Widow filed application. COURT HELD: Causal connection between injuries and suicide established and is thereby compensable.
- 18) In the case of EDISON WAREHAM Vs. UNITED STATES RUBBER CO. 207 R.I. 73 (1947), Petitioner injured back while working for employer. Wore brace and alleged he could not work. Orthopedic surgeon testified no disability. Psychiatrist testified back complaints on emotional basis: had developed an anxiety neurosis. COURT HELD: Disability due to anxiety neurosis growing out of and caused by a physical injury arising out of and in the course of employment is compensable.
- 19) In the case of LALA Vs. AMERICAN SUGAR REFINING CO. (1949 La. case) 38 So. (2) 415, Petitioner while operating a centrifugal machine, slipped on circular stairway in plant, fell 60 feet, striking head and face against iron post. Became emotionally upset, sensitive to noise, had headaches, constant pain and could not sleep. COURT HELD: Since nervousness, neurosis, or emotional disturbances, super-induced by injuries suffered by workman, can be as devastating to the ability of workman to return to work as are physical or anatomical injuries, they are equally compensable.
- 20) In the case of HOOD Vs. TEXAS INDEMNITY CO. 146 Texas 527, 209 SW (2) (1948), Petitioner alleged that while engaged in work for his employer he suffered injuries to his left foot and right elbow. Was disabled for four weeks. Subsequently was unable to work. According to medical testimony, petitioner's disability was not due to organic nerve disorder but had a mental origin. COURT HELD: Neurosis of the character of that from which the petitioner is suffering is a disease, and if it results from a physical injury, is compensable.
- 21) In the case of CARTER Vs. GENERAL MOTORS CORP. 261 Mich. 577, 106 N.W. (2) 105 (1960), Petitioner, continually berated by foreman, feared lay-off and suffered emotional collapse. COURT HELD: Case compensable, for mental injuries are not to be treated as different from physical injuries, but whether they are "by accident" and "arise out of" employment or work environment.
- 22) In the case of MILLER Vs. BINCHAM COUNTY, 79 Idaho 87, 310 Pac (2) 1039 (1957), COURT HELD: Fright during auto collision which led to cerebral hemorrhage to be compensable.
- 23) In the HUNNERWELL case, 220 Mass. 351, 107 N.E. 934 (1925), COURT HELD: Hysterical blindness following physical injury held to be compensable.
- 24) In the CHARON case, 321 Mass. 694, 75 N.E. (2) 511 (1947), petitioner suffered conversion hysteria or reaction in form of paralysis of left side from fright caused by loud noise and flash of light created when lightning struck building while he was

working at his bench. COURT HELD: Fright from lightning which precipitated paralysis to be compensable.

25) In the case of BURLINGTON MILLS CORP. Vs. HAGOOD, 177 Va. 204, 13 S.E. (2) 291 (1941), COURT HELD: Electric flash producing neurosis to be compensable.

*A mental or neurotic disability is NOT compensable (1) where it is remotely and incidentally related to the injury (2) where other factors caused the neurosis and (3) where there is no causal connection between the injury and the neurosis.

26) In the case of SANITARY DISTRICT Vs. INDUSTRIAL COMMISSION OF ILLINOIS, 343 Ill. 236, 175 N.E. 392 (1931), the claimant suffered from a highly nervous condition which he attempted to attribute to a slight trauma which had occurred one year prior. Evidence was introduced that the claimant was in bad mental condition prior to the accident. Because of this mental condition and the fact that injury was slight, a causal connection between the accident and the subsequent condition could not be established, and recovery was denied.

27) In the case of THOMPSON Vs. RAILWAY EXPRESS AGENCY, 241 Mo. App. 683, 236 S.W. (2) 1951) the COURT STATED: a psychoneurosis under some circumstances does present compensable injury, but this should not open the way for indiscriminate compensation on that score simply because it follows an accident. The causal connection with the accident must be proven by clear medical evidence, for a neurosis may arise from any number of causes.

28) In the case of PHELPS DODGE CORP Vs. INDUSTRIAL COMMISSION, 46 Ariz. 162, 49 Pac (2) 391 (1935), COURT HELD: claimant's neurosis did not arise from his injury, but was in fact induced by a deep-set fear or apprehension of imaginary ailments that might follow as a result of his injury, and the deplorable condition in which his family might be left, and therefore no award was allowed.

29) In the case of SCHNEYDER Vs. CADILLAC MOTOR CAR CO., 280 Mich. 127, 273 N.W. 418 (1937), there were no physical impairments in the claimant to prevent him from returning to his job. However, the claimant developed a bad mental condition in which notions of injustice and persecution in connection with his claim for compensation predominated. COURT HELD: Where the mental disturbance

is collateral to the injury, does not arise directly from it, but is due to worry, anxiety, or brooding over the accident or its effect, or the like, it is not compensable.

30) In the case of PATANE Vs. STIX, BAER & FULLER, 326 S.W. (2) 402 (1959), the plaintiff was employed as a salesgirl in the defendant's department store. She had a long period of inefficient selling and had often been threatened with discharge. She had a psychoneurotic personality long before her accident. Her poor work continued and she was discharged one year subsequent to her injury. By successful showing that the claim for neurosis was filed after the discharge the defendant was able to avoid liability.

31) In the case of PETERSON Vs. DEPARTMENT OF LABOR & INDUSTRIES, 178 Wash. 15, 33 Pac (2) 650 (1934), COURT HELD: The mere fact that one suffered physical injuries in 1926 does not establish that a mental condition developed 6 years later was caused by these injuries.

32) In the case of SWIFT & COMPANY Vs. WARE, 53 Ga. App. 553, 186 S.E. 452 (1936), the claimant was suffering from a psychoneurosis manifesting itself in the form of a right side hemiplegia. The COURT HELD: If the neurotic state was occasioned by a desire to continue drawing compensation, this condition was not compensable, because it did not arise out of an accident, but out of the want, need, and desire for food, clothing and support of his family.

There is no escaping the fact that the problem of traumatic neurosis has become a major one in the area of employment. It must be admitted that the intangibles of a problem of this nature present difficulties indeed. In view of the nebulous characteristics of traumatic neurosis, there is always a possibility that the petitioner's beliefs or state of mind may not be genuine, and that he may be a malingerer. In these types of cases attorneys representing either the employer or employee must depend or seek aid from the medical profession for scientific medical tests to differentiate the malingerer from the person who is truly suffering from a neurosis.



• drug addiction

present problem in Illinois

IMJ for SEPTEMBER

IMPAC DAY—1963

DONALD E. CLARK, M.D., *Springfield*

On the second day before adjournment *sine die* of the Illinois Legislature, the official printed Calendars of issues to be determined by each House, already considerably reduced from previous days, measured about two feet by three feet. The House Calendar carried 176 proposals for laws which were to be accepted or rejected that day.

Looking on the legislative debate during the morning were IMPAC members participating in a day devoted to deeper understanding of the legislative process which begins when state senators and representatives are elected.

IMPAC Day in Springfield began at 10 a.m. with a brief orientation session on the nature of the day's activities. Richard Lockhart, staff coordinator, explained the layout of the State Capitol building, emphasizing the location of the chambers of the Senate and the House of Representatives, which participants planned to visit. Unlike the national Capitol, in Washington, D.C., which is devoted exclusively to the legislative branch of government, the Illinois State Capitol houses offices of the governor, lieutenant-governor, secretary of state, and various other state officials and departments.

The chambers of the two legislative bodies are located on either side of the building on the third floor. Separating them is the circular well under the huge dome, a wide, open area referred to as the "rotunda." Here, legislators, lobbyists, and visitors meet by the scores all during the session. A brass and wrought iron railing circling the area, burnished by years of being the literal center of attention in the rotunda, allows observers to watch activity on the floors above and below.

Mr. Lockhart listed the names of the leaders of both Houses, explaining that the Lieutenant-Governor, Samuel H. Shapiro, presides over the Senate, but may cast a vote on any issue only in the event the members of the Senate

are equally divided. He also told participants to watch for certain non-legislative members who might be on the floors of the chambers: aides of the legislative leaders, or of the governor or Chicago's Mayor Daley, or members of the Legislative Reference Bureau, part of whose job is to record legislation and legislative action on each bill. This is a mammoth task; over 3200 bills were introduced during the 1963 session.

Visitors' galleries for the legislative houses are on the fourth floor. Of special interest to those observing are the huge electric "scoreboards" in the House of Representatives, which record official votes of the legislators in a matter of seconds, rather than requiring a voice vote by roll call of the 177 members. Voice votes are taken in the Senate.

Mr. Lockhart explained that, again unlike the U.S. Congress, speeches and debate of the legislators are not recorded in the official Journals. These publications record only the order of business, numbers and titles of bills considered, and the official vote of each member whenever there is a roll call.

Nevertheless, members of the legislature frequently arise to "explain" their votes. This may have one of several purposes: to give the legislator an opportunity to justify his position for the benefit of the press and his constituents; to attempt to persuade fellow legislators to follow his example; to delay the vote while colleagues who share his position discuss the issue with others in the hope of winning their votes for or against the bill.

Facing the legislators in each chamber, to the sides of and below the presiding officers, are wide tables, equipped with telephones, and reserved for the press.

IMPAC Day participants then adjourned to the State Capitol to observe the Legislature at work.

Since it was the last day before adjournment *sine die* of the 73rd legislative session,

most legislative attention was directed toward bills which had originated in and passed one House and were being debated by the second House. Almost every roll call witnessed was to determine passage or rejection of a bill on third reading — rather than the earlier processes of first or second reading, at which stage amendments are made.

Again unlike the U.S. Congress, when a House of the Illinois legislature is in session, all members are present, unless unable to attend because of illness or non-legislative business. Committee meetings are held before or after the business sessions. On IMPAC Day, illness or death prevented attendance of at least three members of each House, an indication of the tension which attends each session. During the last few weeks of the session, a number of legislators collapsed while in attendance; in most cases the diagnosis was exhaustion and tension. Similarly, death claimed one member of the House of Representatives.

An observer is quickly made aware of the huge number of insignificant bills which demand the attention of legislators. These bills generally represent a very specific interest of their sponsors or their sponsors' constituents. Many do not pass; but the time necessary for their consideration is a substantial drain on the Legislature.

Following a luncheon for IMPAC Day participants, the afternoon was devoted to discussion of IMPAC's role in the selection and election of state legislators. The relationship between legislation and legislative elections was analyzed by V. P. Siegel, M.D., of the Illinois State Medical Society, Roger White, Harold Widmer, the chairman of a county central committee of one of the major parties and Mr. Lockhart.

Dr. Siegel, chairman of the ISMS Legislative Committee emphasized the need for ISMS-IMPAC coordination with respect to state and national public affairs.

Mr. White, Director of the ISMS Legislative Division discussed specific legislation considered by the 1963 Legislature which is of special interest to the healing arts professions.

Mr. Widmer described the legislative process, and the roles in that process of legislators and

lobbyists. A former state representative, presently legislative representative for the ISMS, Mr. Widmer explained how a bill is drafted, introduced, and deliberated by the Legislature.

He pointed out that many congressmen began their political careers as state legislators, and that voters should consider that a number of present state representatives will seek congressional offices. With this in mind, IMPAC should take special interest in these state officials as a phase of congressional candidate selection. He also urged doctors to participate more fully in legislative activities. IMPAC deals with candidates. ISMS deals with the issues. Thus the two organizations have a mutual interest in each other's activities.

An official of one of our major political parties discussed the role of the formal party organization in election of state legislators. He urged citizens to participate in party activities and stressed the point that the party, in effect, determines who shall be a candidate.

Elections for the state House of Representatives, for example, begin with the election in each district of three representative committeemen for each party. Their responsibility is to determine how many candidates will receive party endorsement — one, two or three, since there are three elected from every district.

A screening committee is formed by the party to interview all candidates who seek endorsement. From these candidates, the screening committee selects the number which has been determined upon by the representative committeemen, only, of course, if the committee feels that the candidate merits endorsement. The county party organization is not bound to endorse any candidate.

However, the party then wages a general campaign on behalf of all those candidates it has endorsed for all political offices. Just as the campaign of an individual candidate requires financial and participating aid from its supporters, so does the campaign of the party organization. This county chairman urged voters to provide this support to the party's campaign.

Mr. Lockhart discussed the technicalities of electing state legislators. Senators receive four year terms. Those in even numbered senatorial districts are elected in even-numbered years

divisible by four. Those in odd-numbered districts are elected in the intervening even-numbered years. (In 1964, senators will be elected from even-numbered districts.)

All members of the House of Representatives are elected every two years. The practicalities of politics have resulted in the practice of each party of contesting only one or two seats in the general election, which, in effect, assures the minority party in each district of one representative.

For this office, voters may vote cumulatively, that is, while each voter is entitled to cast three votes for the office, he may mark his ballot for only one candidate, giving that individual three votes. For example, if four candidates are running for the office of State Representative, the voter has three choices to make in the manner in which he will vote: he may cast one vote each for three of the candidates; (2) he may cast one vote each for two of the candidates, giving each one $1\frac{1}{2}$ votes; or, (3) he may vote for one candidate, actually giving that individual three votes.

Mr. Lockhart explained that while campaigns for state representatives are on a more local and smaller scale, than congressional campaigns, they are of great importance. The state legislature considers items of significance to

every individual in the state, touching almost every phase of life and even touching on death. Furthermore, state legislators often seek national offices and IMPAC is concerned with candidate selection as well as candidate election.

He explained that IMPAC will probably work more extensively on state legislative campaigns in 1964 than ever before.

Participants in IMPAC Day contributed from their own campaigning experiences to the meeting. The discussion period which ended the meeting, heated at times and unquestionably thought-provoking, indicated the interest of participants in the role of the citizen in electing state representatives.

From discussions with many doctors from various areas in Illinois and other states, it is obvious that all of us have definite convictions as to government participation in medical care and service. Only one group to date has taken positive action concerning their convictions and that is the group who favor mandatory participation in a federally controlled and administered program. The remainder of us recall from civics courses that when a part of any group seeks to implement its views through political action, the entire group is in "politics," and unless it takes positive action, it will be ruled by "political default."

IMJ Reader Response? Remarkable!

No doubt about it, IMJ is really read—as witness the response to two features in the June and July issues:

Sunscope story sizzles—Requests for over 1,000 plans on how to build a "Sunscope" were received in the IMJ offices shortly after a June *Pulse* feature described its role in safe viewing of the eclipse. The article offered "Sunscope" plans in cooperation with the Illinois Society for the Prevention of Blindness, which commended our PR department for its part in "not only preventing blindness from viewing the eclipse incorrectly but making everyone more conscious of the need for eye care and the value of their eyesight."

Cutter Laboratories of Berkeley, California, used the IMJ article as a basis for mailing

"Sunscope" instructions to newspapers on the West Coast. Their letter states that the California Medical Association "endorsed the Illinois project." Even IMJ's advertising department got into the act. Our advertisers were sent "Sunscopes" (laboriously assembled in the IMJ offices) on which appeared the message "This 'Sunscope' is worth looking into July 20—IMJ is worth looking into month after month."

"Case of Missing Volumes" nearer solution—IMJ for July published a plea for missing Journal volumes required to complete our files. Within a week the Norbury Hospital, Jacksonville, sent us vols. 43, 44, 45, 55 and 56. Our sincerest thanks for this prompt response—now we're certain still-missing vols. 1-23 will show up in no time!

NURSING COMMITTEE REPORT

A Warning to ISMS Members

From time to time we are approached by patients requesting advice as to whether certain types of practical nursing schools are adequate for training. For the following reasons, correspondence schools which advertise to train practical nurses in as little as eight weeks are to be condemned:

1. **The curriculum is wholly inadequate because it is aimed at the student with less than minimal educational requirements;**
2. **Students finishing a course of this nature are NOT eligible for practical nursing licenses in Illinois;**
3. **These students, WHEN employed, are employed as nursing aids, a position which does not require the type of course they have paid to obtain;**
4. **It is difficult to see how nursing procedures of even the simplest type can be taught by mail, as they are in this type of school.**

The medical profession should be alerted to the fact that many men and women who have completed a correspondence course in practical nursing have been turned loose on the public. Since these people have no idea of their limitations, they constitute a PUBLIC MENACE. They should NOT be employed in our hospitals, or charged with the care of patients in the home or in offices.

Ted LeBoy, M.D., Vice-chairman
Nursing Committee
Illinois State Medical Society

July 21, 1963

Let's Take Another Look at GASTRIC HYPOTHERMIA

E. CLINTON TEXTER, JR., M.D., Chicago

Gastric hypothermia has received widespread publicity. In the March, 1963 issue of the Illinois Medical Journal, a case report was published, "Control of Massive Gastric Hemorrhage with Gastric Hypothermia," complete with a photo of a dramatic headline from the January 18, 1963 issue of the Chicago Sun-Times. This report concerned a 63-year-old woman who was admitted on January 17, 1963 to a Chicago area hospital with hemorrhage from a presumed gastric ulcer. Gastric hypothermia was administered with an assist from the hospital's purchasing department who located the crated hypothermia machine, a special truck, the hospital's maintenance men, the pharmacy, the hospital administrator, the superintendent of nurses, and the floor nursing supervisor. The patient recovered and "the true Ben Casey drama" was reported in similar fashion in the IMJ.

A letter was sent to the editor concerning the manner of presentation, the very short period between hospital admission and publication, and the basis for enthusiasm for both gastric cooling and freezing expressed therein. The following commentary was invited from the editor of the IMJ.

Dr. Rene Menguy, in his editorial in the February, 1963 issue of the American Journal of Digestive Diseases, "Gastric Hypothermia: A Note of Caution", noted: "At the present time there is considerable interest in hypothermia for the management of certain gastric condi-

tions. This enthusiasm has been carried over into the lay press with the expected pressure being applied upon physicians by their patients, lay hospital boards, etc., to purchase and use the necessary equipment for gastric hypothermia. There is a very natural tendency among the medical profession to want to give patients the benefit of a new therapeutic principle. This is all to the good and we would not be physicians if we did not have this desire to help our patients. It is also true that ever so often we are presented with a new form of therapy that is so obviously successful that to hold it back is a needless sacrifice of lives. The big question in this instance is whether or not gastric hypothermia is indeed such a dramatic improvement in the therapy of the upper gastrointestinal conditions for which it has been indicated.

"The principle of gastric hypothermia as originally described by Wangensteen et al. consists in introducing a balloon into the stomach and perfusing the balloon with a cold solution varying from 0° to -5° C., and thus lowering the temperature of the gastric mucosa to the neighborhood of 10° to 14° C. In some cases, an esophageal balloon is added to the gastric balloon. The method as described by its originators is indicated in managing upper gastrointestinal bleeding due to duodenal ulcer, gastric ulcer, and esophageal varices. The rationale for using gastric hypothermia lies in decreased peptic activity of gastric juice, inhibition of gastric secretion, and decreased gastric mucosal blood flow demonstrated in dogs under local hypothermic conditions. Recently, the same workers extended the principle of gastric cooling to that of gastric freezing, in which temperatures of the gastric mucosa are

Associate Professor of Medicine, Northwestern University Medical School; Attending Physician, Passavant Memorial Hospital, Veterans Administration Research Hospital.

lowered to the neighborhood of -10° C. by using balloon inflow temperatures of -20° C. for periods of 30-45 minutes. This profound gastric hypothermia would be indicated for the management of intractable duodenal ulcer and would, according to its proponents, cause gastric anacidity and achieve a 'physiologic gastrectomy'.

"The questions that any physician desiring to use these procedures should ask himself are: (1) Are these technics useful? (2) Are they safe?"

Convincing evidence has not been put forth that intragastric cooling in the management of upper gastrointestinal hemorrhage is superior to other methods of treatment; further, the danger of gastric rupture is sufficiently great that in some hospitals the use of intragastric cooling has been prescribed for patients with gastric or duodenal ulcer.

In a recent issue of Medical World News (May 24, 1963) it was noted, "Surgeon Owen Wangensteen first applied his nonoperative gastric freezing procedure to a peptic ulcer patient on Oct. 8, 1961, at the University of Minnesota Medical School. In the 19 months since, the freezing technique has moved from experimental use into private practice". It has been estimated that more than 2000 patients have undergone this "treatment". Popularization of gastric freezing has placed some physicians under pressure to use this form of therapy. However, an urgent warning against the general use of freezing was issued at the recent meeting of the American Gastroenterological Association in San Francisco and the American Medical Association in Atlantic City.

At the San Francisco meeting, Dr. Eugene Bernstein of Minneapolis reported on more than 1000 treatments on 951 patients from 11

hospitals. No mortality was reported, pain was relieved in 85 per cent, and the asymptomatic state persisted for 6 months despite recovery from secretory depression. The other members of the panel were much less enthusiastic. On the basis of experiments on animals comparable in size to man, Dr. George Hallenbeck of Rochester, Minnesota, concluded, "It is inconceivable that the stomachs of man become entirely frozen, because if they did, the mortality and morbidity rates would have to be much higher than they are".

Dr. M. I. Grossman of Los Angeles, declared that freezing "should be limited to research situations, but I think we have to go much further than this and say that the individuals who introduce such a new form of treatment cannot be passive about this recommendation.

"They must be active in indicating that it is to be confined to research situations. And I think that it is rather well-known that this form of treatment is being used widely in other than research situations. . . . I strongly advocate that we . . . attempt to restrain the general use of forms of treatment that have not yet been proven, and that in this particular instance those who are engaged in its use and its introduction offer strong warnings wherever possible that it should not be prematurely used in other situations".

Doctor Menguy concluded his editorial as follows "there is little likelihood that a period of study and careful scientific examination of these technics will result in potential loss of life to patients. At a time when medicine is slowly progressing from an art to both an art and a science, it behooves us all to apply to our clinical practices some of these scientific principles we keep talking about". The implications should be clear to all of us.

Approved Dental Services In Illinois Hospitals

In its continuing effort to keep the profession fully informed, IMJ presents the first publication of the full list of approved dental services in hospitals of the state.

The hospital dental services provided for the hospital patient vary with the size of the hospital and the type of service rendered by the hospital. Services generally fall in the categories of Pedodontics, Dental Roentgenology, Oral Hygiene, Oral Pathology, Oral Surgery, Periodontics, and Restorative Dentistry.

These services have been approved by the Council on Hospital Dental Service of the American Dental Association.

- Alton State Hospital**
Alton, Illinois
- Anna State Hospital**
Anna, Illinois
- Chicago State Hospital**
Chicago, Illinois
- Children's Memorial Hospital**
Chicago
- Cook County Hospital**
Chicago
- Franklin Boulevard Community Hospital**
Chicago
- Michael Reese Hospital**
Chicago
- Mount Sinai Hospital**
Chicago
- Research and Educational Hospitals**
University of Illinois
Chicago
- St. Luke's Hospital**
Chicago
- University of Chicago Clinics**
Chicago
- US Public Health Service Hospital**
Chicago

REFERENCE PAGE NUMBER 44 (CONT'D.)

VA Research Hospital
Chicago
VA West Side Hospital
Chicago
VA Hospital
Danville
Dixon State School
Dixon
VA Hospital
Downey
VA Hospital
Dwight
East Moline State Hospital
East Moline
Elgin State Hospital
Elgin
Evanston Hospital Association
Evanston
Galesburg State Research Hospital
Galesburg
US Naval Hospital
Great Lakes, Illinois
Ingalls Memorial Hospital
Harvey
VA Hospital
Hines
Jacksonville State Hospital
Jacksonville
Kankakee State Hospital
Kankakee
Lincoln State School
Lincoln
Manteno State Hospital
Manteno
VA Hospital
Marion
Peoria Municipal TB Sanatarium
Peoria
Peoria State Hospital
Peoria
USAF Hospital Chanute
Chanute Air Force Base
Rantoul, Illinois
USAF Hospital Scott
Scott Air Force Base
Carle Memorial Hospital
Urbana, Illinois



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and record of safety with which 'Miltown' (meprobamate) relieves anxiety and anxious depression has been clinically authenticated time and again during the past eight years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more than any other tranquilizer in the world.

Slight drowsiness may occur with meprobamate and, rarely, allergic reactions. Meprobamate may increase effects of excessive alcohol. Use with care in patients with suicidal tendencies. Massive overdosage may produce coma, shock, vasomotor and respiratory collapse. Consider possibility of dependence, particularly in patients with history of drug or alcohol addiction. Withdraw gradually after prolonged use at high dosage.

Usual dosage: 1 or 2 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50.

the original
meprobamate
Miltown®



WALLACE LABORATORIES / Cranbury, N.J.

CM-9241

What's New

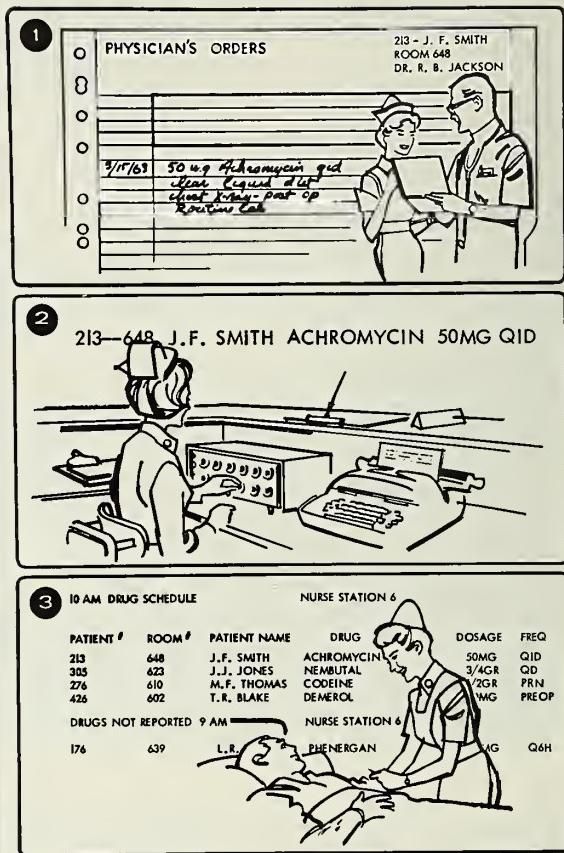


NEW HEMOGLOBIN DETERMINATION—Accurate, rapid blood hemoglobin determinations are now possible in minutes with the new BMI photoelectric HgB meter and simplified procedure available from Berkeley Medical Instruments of Berkeley, California. The small 16 1/2" x 9") compact instrument requires little space—provides an excellent means of determining hemoglobin concentration either in the office, laboratory or hospital. Direct reading dial shows results in grams hemoglobin per 100 ml. blood.

The micro-technique — for use with either oxyhemoglobin or cyanmethemoglobin methods — requires but a drop of whole blood and may be learned quickly by either technical or semi-technical personnel. Use of accurately calibrated disposable pipettes eliminates time consuming pipette cleaning and costly glass breakage.

The compactness of the BMI photoelectric HgB meter is achieved through use of a miniature photocell and lamp which reduces heat output to a minimum, virtually eliminating drift due to internal thermal effects. The solid state power supply provides steady lamp illumination even should voltage vary as much as 95 to 130 volts—a performance far exceeding ordinary transformer stabilizers.

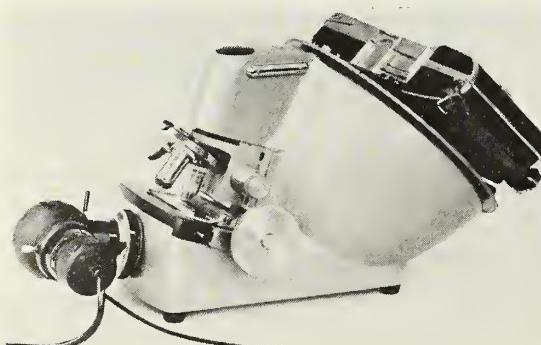
BMI furnishes the instrument complete with illustrated instructions for \$144.50 on a 30 day trial basis. For further information, write Berkeley Medical Instruments, 1510 Sixth Street, Berkeley 10, California.



IBM HOSPITAL INFORMATION SYSTEM AT The Children's Hospital of Akron, built around a central computer, will speed the flow of patient data to and from key locations.

(1) Typical of the kind of information the system will handle is a doctor's order for medications, tests, examinations, etc.

(2) By setting dials at a terminal, a nurse will enter the doctor's instructions into the computer. This information will be printed out on a typewriter so the nurse can compare it with the original order and verify its accuracy. (3) If the order calls for periodic medication for a patient, a schedule will be automatically produced by the computer at set intervals advising a nursing station that medication is to be given at a certain time.



PROJECTION MICROSCOPE — The Reichert "Visopan", a complete micro-projector combining a microscope, an illuminating system, and a projection screen into one compact unit, can now also be equipped for photomicrography with 4 x 5" Graflok Back and for application of the standard Polaroid Land Camera Back. The change-over from micro-projection to photomicrography takes but a few seconds. For photomicrography the "Visopan" is equipped with built-in self-cocking shutter for exposure from 1/125 of a second to a full second, plus T & B. For complete particulars write to: William J. Hacker & Co., Inc., P.O. Box 646, West Caldwell, N.J.

(Section continued on page 164)

A new 90-bed non-profit hospital for psychiatric therapy, opened in September of 1962, just ten minutes from Chicago's Loop.

The RIDGEWAY provides a setting conducive to intensive psychotherapy, and comprehensive facilities for somatotherapy.

Patient comfort is emphasized throughout the beautifully decorated air conditioned building, with an excellent cuisine and an active recreational and occupational therapy program.



For further information, contact:

Director of Professional Services

520 North Ridgeway Avenue, Chicago 24, Illinois
Phone 722-3113

(Application Pending Joint Commission on Hospital Accreditation)

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Rare Coin Company of America is one of the Largest Coin Dealers in the Country. We enjoy a High Reputation in the Coin Collecting Field. We are in a position to advise you on sound purchases of Rare Coins. If you have \$200, \$500, \$1,000 or more to invest in exceptional future profits and Estate Benefits, phone or write us for information on how this can be done.



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31 North Clark Street, Ph. 346-3443, Chicago 2, Illinois



DISPOSABLE DRAPE FOR SURGICAL AND OBSTETRIC PATIENTS — More and more hospitals are adopting Surg-O-Pak®, sterile, disposable drapes fabricated of reinforced cellulose to replace "linen" (cotton) for surgical and obstetric patients. Outstandingly important is the new dimension in aseptic technique achieved by Surg-O-Pak; its use uniquely and more effectively shields the operative area because it resists "strike-through" or wetting by body fluids and saline. Such resistance to "fluid strike-through" blocks passage of bacteria, yet Surg-O-Pak permits normal under-drape air circulation and thermal exchange so that there is no heat "build-up". Further, disposable drapes eliminate the risk of cross-infection due to cloth drapes that have been soiled. When soiled Surg-O-Pak drapes are incinerated, a lurking source of cross-infection is eliminated. The risk of a defect or a lapse in sterilization procedures is done away with. As supplied, these drapes are ready for instant use. Each pack is enclosed in an outer wrap, is sterilized, and is sealed away from environmental sepsis by a polyethylene envelope to permit storage for prolonged periods without risk of contamination. Available in standard packs, and custom packs or individual parts such as Laparotomy and Lithotomy Sheets, Leggings, D & C Packs, etc., they are specially designed and tailored to meet specific needs and exact requirements of individual hospitals.



FIRST EXPLOSION-PROOF HEADLIGHT — A new explosion-proof surgical headlight has been announced by Welch Allyn, Inc. It is said to be the first headlight ever to receive a listing from Underwriters' Laboratories under Class I, Group C, "Medical Equipment for Use in Hazardous Locations". The manufacturer states that this headlight may be used safely in the presence of all types of anesthesia gases.

This new headlight is powered by rechargeable batteries which may be worn by the surgeon on a special belt, thus making the unit completely self-contained and freeing the surgeon from the nuisance and possible danger of trailing electrical cords. Having its own power source also makes this headlight of potential value in the event of central power failure during an operation. Two rechargeable battery packs, each having a minimum full-intensity life of one hour, are furnished with each headlight.

The headlight and battery packs may be gas sterilized, if desired, at temperatures up to 130° F, while the fabric headband and belt may be laundered or sterilized by any method.

Rx Reviews



NEW DRUGS

To Prolong Coitus

Culminal®, applied to the penis before intercourse, proved highly effective in the relief of premature ejaculation. Culminal is a special formulation containing ethyl aminobenzoate in a vanishing cream type base.

In the clinical investigation reported, Culminal significantly reduced the hypersensitivity of the mucous membrane of the penis. It corrected premature ejaculation in all cases. These patients had previously ejaculated before the penis was inserted or immediately on intromission. There were no side effects and the drug did not affect the wife's sensation in any way.

In many cases the mental attitude of both husband and wife was materially benefited by restoration of normal sexual harmony.

Due to the embarrassing circumstances attending premature ejaculation, provision has been made to supply Culminal direct to physicians and their patients by Culminal, Inc., P.O. Box 8, Union City, N.J.

Antineoplastic Agent

A new antineoplastic agent which significantly prolonged the survival of children with acute leukemias after their cases had become refractory to other drugs has been introduced by Eli Lilly and Company under the trademark Oncovin (vincristine sulfate, Lilly).

Oncovin is one of some forty alkaloids obtained by Lilly phytochemists from a flowering shrub, the periwinkle plant (*Vinca rosea* Linn.).

It is the second periwinkle alkaloid to be made available to physicians for treating cancer patients. The (Section continued on page 170)

★

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SPRINGFIELD OFFICE: F. A. Seeman, Representative

Mailing Address: Rochester, Illinois

Telephone (Springfield) 544-2251

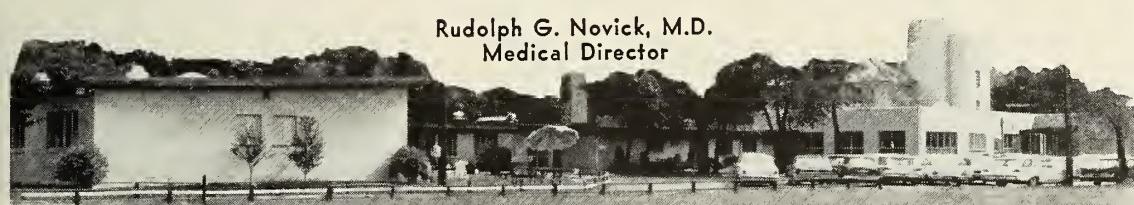


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Hospital*

- **A nationally known** psychiatric treatment center, accredited by the Joint Commission on Accreditation of Hospitals and the Central Inspection Board of the American Psychiatric Association.
- **New therapy building** with swimming pool, gymnasium, game room, beauty shop, living-bedroom combinations, an open area for selected patients. Milieu therapy.
- **Fifty-six attending psychiatrists**, a consulting staff of 30 in all specialties, and a house staff of seven.
- **Conducts an extensive adjunctive therapy program**, in which occupational, recreational and group work staff combine skills in a total therapeutic effort (with patient activities and staff attitudes specifically prescribed by the physician).
- **An adolescent program** under full time child Psychiatrist.

YOUR INSPECTION IS INVITED

Rudolph G. Novick, M.D.
Medical Director



555 WILSON LANE, DES PLAINES, ILL. PHONE: 824-2193—299-3311

NEWS AND ANNOUNCEMENTS

Clay County

Community Honors Physician

The community of Flora, Illinois recently honored one of its physicians, Dr. Harvey D. Fehrenbacher, on the occasion of his 50th Anniversary as a physician.

Dr. Arthur Goodyear, trustee for the ISMS' 7th District, presented Dr. Fehrenbacher with his 50 Year Pin on behalf of the Society. The community presented a "This is Your Life Presentation" which included some of Dr. Fehrenbacher's medical school classmates. Representing the Clay County Medical Society was president, Dr. L. L. Hutchins. Dr. Fehrenbacher graduated from St. Louis University in 1913.

Henry County Meeting

A September 11 meeting sponsored by the Henry County Medical Society, will feature

"Impartial Medical Testimony in Illinois" at the Midland Country Club in Kewanee, Illinois. Members of the Henry County Bar Association will also be in attendance. The speaker for the evening will be Mr. Carl Rolewick, assistant to the Deputy Administrator for Cook County representing the Supreme Court of the State of Illinois.

Cook County

Elections

Dr. Jerome G. Finder has been elected president of the Chicago Orthopaedic Society.

High School Teams Need Doctors

Dr. Irving Abrams, Medical Director of the Chicago Public Schools, has announced that physicians are needed during the football season which begins September 14 and continues

increases
blood flow
to the brain
in the
"senility syndrome"
associated
with
cerebrovascular
insufficiency

through November 23. Each Thursday, Friday and Saturday there are 18 games played throughout the city and doctors are needed to be present at each of these games. Duties would include appraising possible injuries and providing disposition of the injured. Little or no treatment would be required. The schools will pay \$20 for this service. Those interested should call Mr. Arthur Buehler, Director of the Bureau of Health, Physical Education and Recreation of the Chicago Board of Education, Dearborn 2-7800 Extension 365.

The Alumni Association of The Chicago Medical School has selected Dr. A. Estin Comarr, chief of neurological urology at the Veterans Administration Hospital in Long Beach, Calif., as the first recipient of its annual scientific meritorious award for a distinguished alumnus. Dr. Comarr is also assistant chief of the hospital's paraplegic service, one of the nation's major centers for paraplegics.

General

FTC Medical Vacancies

The Federal Trade Commission has Medical Officer vacancies on its scientific staff. The FTC is concerned with the protection of the public health through regulation of false and misleading advertising of drugs, foods, medical devices, cosmetics and other related products. The medical officers would be required to review and evaluate these commodities. Further inquiry should be made to George Dobbs, M.D., Associate Chief, Division of Scientific Opinions, Federal Trade Commission, Washington 25, D.C.

Grants

The Illinois Department of Mental Health has received a grant of \$171,000 from the Department of Health, Education and Welfare for comprehensive planning. In notifying Illi-

Inadequate cerebral blood flow—often due to cerebral arteriosclerosis—may result in the "senility syndrome" with its pattern of mental confusion, memory lapses, depression, fatigue, apathy and behavior problems.¹⁻³

43% increase in cerebral blood flow⁴

In patients with cerebrovascular insufficiency, Eisenberg⁴ measured a 43 percent increase in blood flow in the brain following administration of Arlidin (nylidrin HCl) orally for more than two weeks beginning with a dosage of 12 mg. t.i.d. and increasing to 18 mg. t.i.d. There was a decrease in cerebral vascular resistance in most instances.

Winsor and associates³ found Arlidin (nylidrin HCl) "of particular value clinically in relieving some of the symptoms of cerebral vascular insufficiency (vertigo, lightheadedness, mental confusion, diplopia)."

arlidin®

nylidrin HCl

SUMMARY: Indicated whenever an increase in blood supply is desirable in circulatory insufficiencies of the extremities, brain, eye and ear. Use with caution in the presence of a recent myocardial lesion, severe angina pectoris and thyrotoxicosis. Contraindicated in acute myocardial infarction.

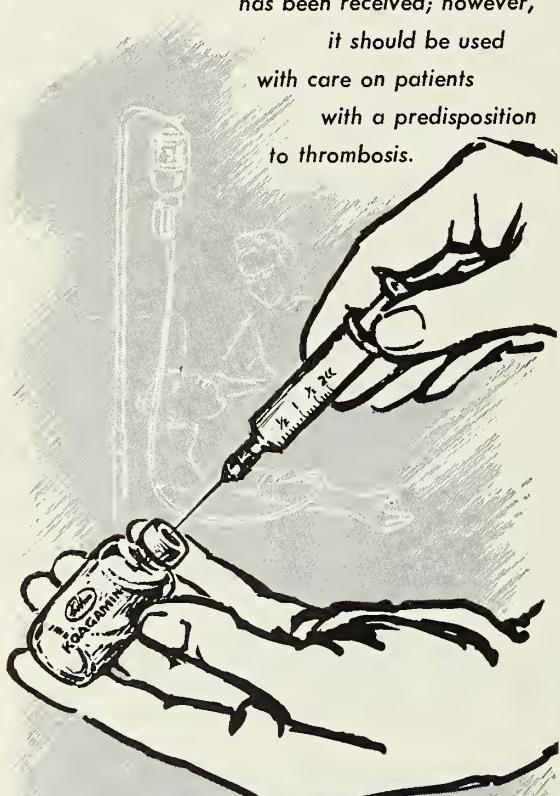
REFERENCES: 1. Madow, L.: Penn. M. J. 62:861, June 1959. 2. Stieglitz, E. J.: Geriatric Medicine, ed. 2, Philadelphia, Saunders, 1949 p. 274. 3. Winsor, T., et al.: Amer. J. Med. Sciences 239:594, May 1960. 4. Eisenberg, S.: ibid, July 1960.

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reduce or obviate the need for transfusions and their attendant dangers

KOAGAMIN is indicated whenever
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presents a problem.

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has been received; however,
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Each cc contains: 5 mg. oxalic acid, 2.5 mg. malonic
acid, phenal 0.25%; sodium carbonate as buffer.
Complete data with each 10cc vial. Therapy chart on request.



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noise of the grant the regional director of HEW praised the state's zone clinic program. Dr. Clarke W. Mangunm said "You are to be especially commended for the zonal organization, for planning and for providing special attention to the problems of the large metropolitan community."

Announcements

PG Courses

A new film concept for continuing medical education has been developed by the Wm. S. Merrell division of Richardson-Merrell, Inc.

A Clinico-Pathological Conference film made at the Philadelphia General Hospital received its premiere at the recent AMA meeting. It is now available to all interested professional groups and may be obtained with supportive literature on a free loan basis.

A special, new teaching feature of the film allows for audience participation. Actually, the single reel (16 mm.) sound, color, film has two parts; at the completion of the first part the projector may be stopped while each member of the audience makes his diagnosis.

Merrell supplies the viewer with a pocket-size summary booklet giving all the details of the case in the film. A section of the booklet is sealed and contains the answer.

Hospitals, medical schools, and medical societies may obtain more information about the free loan of the CPC film by writing to John B. Chewning, M.D., Director of Professional Relations, The Wm. S. Merrel division of Richardson-Merrel Inc., Cincinnati 15, Ohio.

A 6-day training course in chemical and biological defense is currently being offered bimonthly at Fort McClellan, Alabama, by the United States Public Health Service, Division of Health Mobilization.

The course, which will be repeated through April, 1964, is conducted in cooperation with the Army Chemical Corps School, Fort McClellan, and is designed to train public health and medical personnel in developing chemical and biological defense programs.

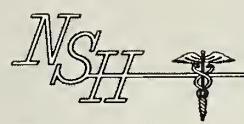
There is no tuition fee nor is security clearance required. Future courses are scheduled to begin August 19, October 14, December 9, February 10, and April 6.

*On its doorstep, the restful vista of
Lake Michigan and cool, bracing
breezes.*



Care and treatment of emotional disorders

for information contact:
Milton A. Dushkin, M.D.
MEDICAL DIRECTOR



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Coca-Cola, too, is compatible with a well-balanced menu. As a pure, wholesome drink, it provides a bit of quick energy..brings you back refreshed after work or play. It contributes to good health by providing a pleasurable moment's pause from the pace of a busy day.



Rx Review (cont'd from page 164)

first was Velban® (vinblastine sulfate, Lilly), which is useful in the treatment of generalized Hodgkin's disease and choriocarcinoma.

Although investigators have reported Oncovin's activity against wide variety of neoplasms, at present the available data support its use only in the acute leukemias of children. It has not been approved by the Food and Drug Administration for treatment of neoplasms in adults or of other neoplasms in children.

In the two years since, data have accumulated to show that Oncovin has at least the same order of activity as the other recognized agents used for treating acute leukemia in children—methotrexate, 6-mercaptopurine, and steroids. Furthermore, in many cases Oncovin induced complete or partial remissions in children whose cases had grown refractory to these other drugs.

In general, side effects observed with the use of Oncovin are reversible and are related to dosage.

Oncovin is administered intravenously *at weekly intervals*. The size of dose is determined by body weight. In children, remissions from acute leukemia have been induced with weekly doses of 0.05 to 0.15 mg. per Kg. of body weight.

Ampoules Oncovin, with accompanying diluting solution, are supplied in combination packages as follows:

Ampoules No. 694, containing 1 mg. Oncovin and 10 mg. lactose

Ampoules No. 695, containing 5 mg. Oncovin and 50 mg. lactose.

Included with both of these packages is Ampoule No. 696, Diluting Solution for Oncovin, 10 cc., containing 90 mg. sodium chloride with 0.9-per cent benzyl alcohol as a preservative.

Hematinic

Lloyd Brothers, Inc. announces the introduction of Copoietin Ferrous, a new cobalt chelate complex with iron, for the treatment of certain forms of anemia. This product is available only on prescription in enteric-coated tablet form for oral use.

Composition: Each enteric-coated tablet contains cobalt di-sodium ethylene bis-imino diacetate, 110 mg. (Cobalt as Co. 15 mg.) and ferrous sulfate exsiccated, U.S.P. XV., 100 mg.

Action and Uses: Copoietin Ferrous provides the greater tolerance of a stable cobalt chelate. Laboratory studies indicate that the erythropoietic action of cobalt is mediated physiologically through the unique ability of cobalt to enhance the formation of erythropoietin, the erythropoietic hormone. As a result, significant increases occur in the utilization of iron and parallel increases in red cells and hemoglobin result. The increased utilization of iron due to Copoietin administration affords effectiveness with relatively small iron dosages. Improved patient tolerance with effective

hematinic therapy can, therefore, be expected with Copoietin Ferrous.

Indications: Prevention and treatment of iron deficiency (hypochromic) anemia and in anemias due to arthritis, nephritis, chronic infection and chronic inflammatory disease when accompanied by iron deficiency.

Contraindications: Without value in macrocytic or hemolytic anemia and is not recommended, therefore, in the treatment of pernicious anemia or sickle cell disease. It should be discontinued, particularly in chronic kidney disease, if gastrointestinal intolerance results in nausea and vomiting.

Side Effects: Sensitive individuals may develop a skin rash or show gastrointestinal intolerance while taking cobalt preparations. Anginal pain and inhibition of thyroid function have been reported in rare instances in patients receiving cobalt, and the drug should be discontinued if such symptoms develop. As with any potent drugs, the possible effect of prolonged cobalt administration may not be fully known and caution should be exercised in long-term administration.

Administration and Dosage: Up to 4 tablets daily as directed by a physician.

Supplied: Bottles of 60 red, enteric-coated tablets for oral use.

Rapid Coombs Test Check

A new red blood cell reagent designed to provide one minute verification of negative Coombs test results used in studying blood for transfusions, has been introduced by Knickerbocker Biologics, Pfizer Laboratories Division, Chas. Pfizer & Co., Inc., at the annual meeting of the American Society of Medical Technologists.

Called Checkcell, the new reagent consists of especially sensitized Group O red blood cells. It is designed to be used as a check following all negative Coombs tests, to determine whether or not the Coombs test system is reactive and capable of agglutinating or clumping red blood cells.

Checkcell is used when agglutination does not occur after the Coombs test has been conducted. One drop of the sensitized red blood cells is added to the negative Coombs test reaction, and centrifuged for one minute at 2000 RPM. Since Coombs serum normally reacts positively with sensitized red blood cells, agglutination should occur following the centrifugation, if the test system is operative. If no agglutination occurs, the Coombs test should be redone.

Checkcell should be stored under refrigeration at 1 to 6 degrees C. It is provided in the form of single shipments or subscription with fresh deliveries made every two weeks. The National Institutes of Health, Division of Biologics Standards, indicates that the product be used for not longer than 21 days. Checkcell is packaged in 3 ml, 7 ml and 15 ml vials.

Meeting Memos

American Society for Pharmacology and Experimental Therapeutics, Prague, Czechoslovakia, Aug. 20-23
American Academy of Physical Medicine and Rehabilitation, Dallas, Aug. 25-30
American Hospital Association, New York City, August 26-29
Flying Physicians Association, Aurora, Illinois, August 18-23
American Physiological Society, Coral Gables, Fla., September 3-6
American Association of Obstetricians and Gynecologists, Hot Springs, Va., September 5-7
International Congress on Nutrition, Edinburgh, September 9-15
National Rural Health Conference, Hot Springs, Arkansas, Sept. 20-21. "Health Is A Bargain" is the keynote of this AMA sponsored meeting.
Animal Care Panel, Los Angeles, Calif., October 1-4
Conference on Unusual Forms and Aspects of Cancer In Man, New York, October 21-22. Among the topics

to be discussed by world-reknown leaders in the field are The Natural History of Untreated Cancer; Cancer at the Extreme Ages of Life; Radiation Induced Cancer; Cancer and Pregnancy; and Multiple Primary Cancers.

Clinical Congress of the American College of Surgeons, San Francisco, California, Oct. 28-Nov. 1
Pan-Pacific Surgical Association, Honolulu, November 5-13

American Thoracic Society, New York, May 25-27, 1964. The Society is inviting submission of papers on all scientific aspects of Tuberculosis and Non-tuberculous Respiratory and Cardio-Pulmonary Diseases for presentation at the meeting. Information may be obtained by writing the Society at 1790 Broadway, New York 189, New York.

Fifth National Cancer Conference, Philadelphia, Pa., Sept. 17-19, 1964

International Congress on Diseases of the Chest, Mexico City, October 11-15, 1964

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Didactic training at The Chicago Medical School.

Clinical experience at Mount Sinai Hospital of Chicago, a fully approved and accredited 424-bed hospital with approximately 14,000 admissions and 54,000 outpatient visits annually.

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Stipends—\$3,600 to \$8,000 plus dependency allowance.

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Recommend THUM—At all drug stores.

Requests for enrollment forms and further information should be addressed to: Deputy Chief, Training Branch, Division of Health Mobilization, Public Health Service, Department of Health, Education and Welfare, Washington 25, D.C.

Crippled Children Clinics

September 4	Carmi—Carmi Township Hospital
September 4	Hinsdale—Hinsdale Sanitarium
September 4	Rock Island (Cerebral Palsy)—Foss Home, 3808 Eighth Avenue
September 5	Effingham (General)—St. Anthony Memorial Hospital
September 5	Peoria (Cerebral Palsy)—Roosevelt School
September 5	Sterling—Community General Hospital
September 10	East St. Louis—Christian Welfare Hospital
September 10	Peoria (General—Children's Hospital
September 11	Champaign - Urbana—McKinley Hospital
September 11	Joliet—Silver Cross Hospital
September 12	Anna—Anna Community Hospital
September 12	Springfield (General)—St. John's Hospital
September 13	Chicago Heights (Cardiac)—St. James Hospital
September 17	Alton (General)—Alton Memorial Hospital
September 18	Evergreen Park—Little Company of Mary Hospital
September 18	Jacksonville—Our Saviour's Hospital
September 19	Decatur—Decatur & Macon Co. Hospital
September 19	Elmhurst (Cardiac)—Memorial Hospital of DuPage Co.
September 19	Rockford—Rockford Memorial Hospital
September 24	Peoria (General)—Children's Hospital
September 25	Centralia—St. Mary's Hospital
September 25	Elgin—Sherman Hospital
September 25	Springfield (Cerebral Palsy p.m.)—Memorial Hospital

- September 26—Effingham (Rheumatic Fever & Cardiac)—St. Anthony Memorial Hospital
- September 26 Sparta—Sparta Community Hospital

Errata in the "Out-of-Doors"

In Dr. Kowalski's article "Rabies—the Lurking Killer" on pages 52-54 of IMJ for June, allusion to the human incubation period in 20% of cases was mistakenly printed as 3 days (page 53, second column, 13th line). It should read "30 days." Eight lines above the word should be "latitude" instead of "attitude."

Deaths

Thaddeus Bradel, Tucson, Arizona, a graduate of Rush Medical College in 1920, died June 7, aged 69. He had practiced in Chicago for 28 years before moving to Arizona 11 years ago.

Edward S. Burge*, Evanston, a graduate of Rush Medical College in 1935, died June 11, aged 53. Certified in Obstetrics and Gynecology, he was on the Northwestern University staff for many years. He was a fellow of the American College of Obstetrics and Gynecology and a member of the American Committee on Maternal Welfare.

William H. Cooper, Ivesdale, a graduate of the University of Illinois College of Medicine in 1928, died June 25, aged 60. He served as village president for the past nine years.

Alexander S. Hershfield*, Chicago, a graduate of Northwestern University Medical School in 1906, died June 6, aged 82. He served as medical director of the Pinel Hospital for Mental Diseases for 33 years. He was a member of the 50 Year Club and an emeritus member of the Society.

J. Ellis Hodes*, retired, California, a graduate of Chicago College of Medicine and Surgery in 1917, died April 7, aged 73. He retired to San Clemente, California in 1955.

*Indicates member of Illinois State Medical Society.

Edward B. Kalvelage*, Chicago, a graduate of Loyola University School of Medicine in 1919, died June 27, aged 68. He was chairman of the executive board of St. Elizabeth's hospital.

James D. McCloskey*, Alton, a graduate of the State University of Iowa College of Medicine in 1934, died, aged 55.

Arthur R. Metz*, Chicago, a graduate of Rush Medical College in 1911, died June 14, aged 76. Certified in surgery in 1937, he was formerly an associate professor at Northwestern University Medical School and chief surgeon of the Milwaukee Road railroad. He was former president of the Chicago Surgical Society. He was a member of the Society's 50 Year Club.

Stuart R. Meyers, Chicago, a graduate of the University of Illinois College of Medicine in 1963, died June 22, aged 24.

William Murray*, Olympia Fields, a graduate of Northwestern University Medical School in 1929, died June 27, aged 60. He had served as a village trustee for eight years.

Albert F. Swatek*, Chicago, a graduate of the University of Illinois College of Medicine in 1939, died June 16, aged 54. A major in the army medical corps in World War II, he was vice-president of the board of directors of the Garfield Park Community Hospital.

Carl J. Uthoff*, Forest Park, a graduate of the University of Illinois College of Medicine in 1925, died June 20, aged 63. Before his retirement in 1959, he practiced in Oak Park, Hancock and McHenry counties.



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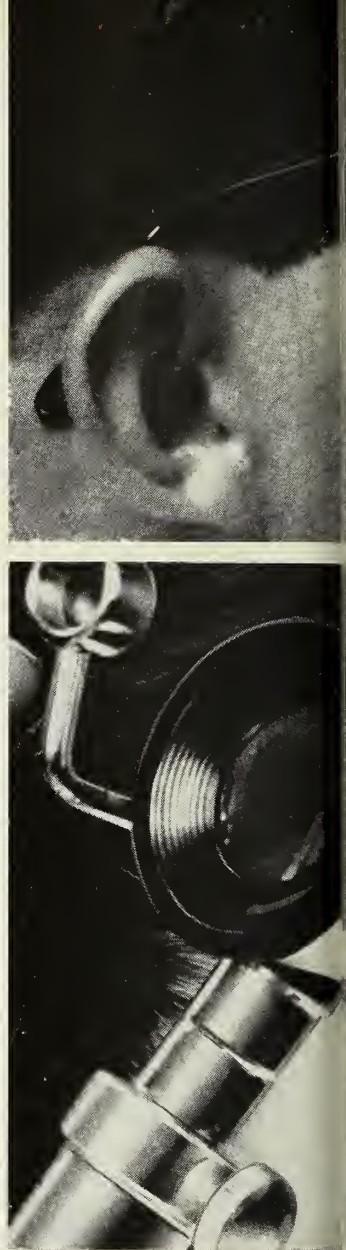
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AS I SEE IT FROM '360'

By ROBERT L. RICHARDS
Executive Administrator

Chamber of Commerce Membership

Offers Benefits to County Societies

The doctor's voice in his community is influential and respected and therefore he is expected to take the lead in promoting the welfare of the community and of its citizens. One of the ways in which this is accomplished is through active membership in the Chambers of Commerce on the local, state and/or national level. Physician awareness of this fact is evidenced by the recent enrollment of more than 40 Illinois county medical societies as association members of the U.S. Chamber of Commerce.

The Illinois State Medical Society became an association member of the Chamber in 1961 after our attendance at the Chamber's first Public Affairs Conference in that year. The following year, the ISMS House of Delegates passed a resolution urging that county societies become members.

The advantages of membership to the county society are numerous. In the organizational structure of the Chamber there is a special Association Department which services associa-

tion-members in legislative, public relations, economic and informational spheres for the nominal membership fees. Program for this Department is directed by an Associations Committee of forty members, of which I have the honor to be a member. This committee represents more than 900 Association-members of the Chamber.

Each Association has delegate representation at the Annual Meeting. At the last meeting ISMS had 10 delegates present. Because of the Chamber's reputation, policy established during these meetings carries nationwide influence. During the struggle to preserve the free enterprise system, the aims of the Chamber complement the aims of organized medicine to maintain itself.

If your county society has not yet become a member of the U.S. Chamber of Commerce, contact your headquarters office. We will see to it that the benefits of such membership are presented to you and your colleagues by a Chamber representative.



Illinois Medical Journal

volume 134, number 3

September, 1963

announcing

A Comprehensive Readership Survey

• *to help us give you the
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Dear ISMS Member:

A Research and Readership Survey for the *Illinois Medical Journal* is currently being made among all ISMS members. You will receive your copy within a month.

The importance of this survey cannot be over-emphasized and I personally solicit your cooperation in completing this form and returning it as soon as possible in the envelope provided.

The IMJ is the official publication of your Society and the survey findings will form guidelines for future editorial policy, helping the Editor and his staff provide the types of articles and features most helpful to you.

The personal and professional information requested is vitally important to the growth of the Journal. Competition has become increasingly keen in the selection of medical publications for pharmaceutical advertising through a drastic slow-down in new products. This slow-down, due to the scarcity of research breakthroughs and new government regulations, has increased the complexity of media evaluation to a point where precise readership information is mandatory.

This survey form is one of the most comprehensive of its kind compiled. During months of preparation, the IMJ staff consulted an independent firm—Workman Research Associates of Chicago—to help assure that each question included is objective and meaningful. Completed forms will be analyzed by another impartial statistical organization or by competent individuals to assure objectivity of the findings. In no instance will personal data be exploited commercially.

I assure you that all returns will be regarded as confidential and that "no salesmen will call" regarding any information given by you in your reply.

Completion time is approximately 24 minutes—a short time to perform an inestimable service for your State Society.

Sincerely,
Jacob E. Reisch, M.D.
Chairman, Journal Committee
Illinois Medical Journal

New Reader Service Introduced

With this issue of *IMJ*, a new feature has been introduced—the Service Page. During the past few years, the *Illinois Medical Journal* has received a steadily increasing number of requests from medical and paramedical organizations who wished to publish regularly scheduled news letters in the Journal.

As a result of these requests, the Journal Committee has approved incorporation into the Journal of a special "Service Page" Section. The first published Service Page is that of the Brain

Research Council of Chicago on page 249. More will be added in the coming months.

The pages will benefit the IMJ reader by making him aware of the various voluntary health organizations and their operations.

According to Dr. Jacob E. Reisch, chairman of the Journal Committee, "This section represents a unique concept in medical publishing, as well as a unique advantage for many organizations wishing to convey their messages regularly to Illinois physicians."

psychiatric problems in non-psychiatric practice



A POST-GRADUATE PROGRAM presented by the Knox County Medical Society in cooperation with Galesburg State Research Hospital, the Illinois State Psychiatric Institute, and the Illinois Psychiatric Society.

April 13, 1963

PARTICIPANTS

Thomas T. Tourlentes, M.D., *Superintendent, Galesburg State Research Hospital; Assistant Clinical Professor of Psychiatry, University of Illinois College of Medicine* • C. H. Hardin Branch, M.D., *Past President, American Psychiatric Association; Professor and Chairman, Department of Psychiatry, University of Utah College of Medicine* • Jules H. Masserman, M.D., *Past President, American Academy of Psychoanalysis; Professor of Neurology and Psychiatry, Northwestern University School of Medicine* • Lester H. Rudy, M.D., *Past President, Illinois Psychiatric Society; Director, Illinois State Psychiatric Institute; Associate Clinical Professor of Psychiatry, University of Illinois College of Medicine* • Donald Oken, M.D., *Secretary, Illinois Psychiatric Society; Associate Director, Psychiatric and Psychosomatic Institute of Michael Reese Hospital* • Robert Drye, M.D., *Director of Education, Illinois Department of Mental Health* • Harold E. Himwich, M.D., *Past President, Society of Biological Psychiatry; Director of Research, Thudichum Laboratory, Galesburg State Research Hospital* • Seymour L. Pollack, M.D., *Assistant Superintendent, Galesburg State Research Hospital; Formerly, Associate Professor of Neurology, Louisiana State University Medical School.*



no such thing as “non-psychiatric practice”

C. H. HARDIN BRANCH, M.D., Salt Lake City, Utah

AT THE OUTSET there should be emphasis of the fact that there is really no such thing as a "non-psychiatric practice." This, in a way, would be like saying that a psychiatric practice is "non-somatic." No physician, whatever his specialty, can be excused for his inability or unwillingness to handle, according to sound medical principles, every condition brought to him for treatment by his patients. This does not mean that he should continue to handle every disease condition if his interests and specialized skills do not allow him to work in this area, but it does mean that he should be able to go as far as he can according to established principles of diagnosis and management.

First of all, it might be well to eliminate those patients for whom no special consideration is required in the context of this presentation. I refer to those individuals who are so grossly disturbed that even a lay person can make a diagnosis of a psychosis. In these cases the problem is largely one of management, and here the role of the first physician to see the patient is of paramount importance in the long-range treatment.

It is essential that the primary physician be completely honest with both the patient and his family. It is not necessary to be cruel or even blunt, but at the same time there is no excuse for the physician who, to avoid a certain amount of momentary discomfort, temporizes with the situation, giving the family and/or the patient a false sense of security and eliminating from them the need to develop a certain amount of responsibility in dealing with the problem. Whatever euphemism he may select, the family physician should be very specific that the patient has some sort of emotional

difficulty or a disturbance in his thought processes and requires immediate consultation, possibly hospitalization and treatment. A calm statement of the facts as they appear at the time will do a great deal to reassure the family and strangely enough, in many instances, the patient who may have been concerned about the effects of external forces on the peculiar phenomena which he observes, and may actually be relieved to find that the problem is one which can be approached in a matter-of-fact way.

It is essential that the primary physician does not hedge about referrals to or consultation with a psychiatrist. It is my general impression that physicians themselves are rather reluctant about this process, even more than the families or the patients. Certainly, if the primary physician is afraid of repercussions of his suggesting psychiatric consultation, he will communicate this fear to the family and can scarcely blame them if they put his unexpressed but implied reluctance into effect by temporizing or refusing pointblank to see a psychiatrist at all.

In connection with this management—and we shall have other things to say about other aspects of the management problem later on—it would be extremely helpful if more referring physicians would continue to keep track of their patients after they have been admitted to a psychiatric hospital or psychiatric unit. We have been trying for some time to involve referring physicians in case conferences concerning their patients when they have been admitted to our unit, but have found them rather reluctant to join with us in these case discussions. It may be that we are not forceful

enough in issuing our invitations or do not provide the proper setting for a discussion of the case, or it may be that the referring physicians are shy about their psychiatric knowledge or do not want to be allied with us in the management of this aspect of the patient's problems. Whatever the reason, in my opinion it is essential that all possible medical and psychiatric information be made available for the most efficient management of the patient, and the continued presence of the referring physician would be very helpful to the patient, his family and the psychiatrist.

There are special management problems which deserve special consideration. First is the problem of the fellow physician or his family when these individuals develop psychiatric difficulties. Often, perhaps as a result of the maintenance of medieval attitudes about mental illness, physicians are extremely reluctant to be as forceful or as definite with the psychiatric problems of their professional

of suicide, immediate hospitalization should be insisted on and no compromise should be accepted. Families are sometimes reluctant to accept this recommendation of immediate hospitalization, and may suggest as a compromise that members of the family be authorized to keep the person at home, so that he can be treated on an outpatient basis, with the understanding that they themselves will assume the responsibility for protecting him against his suicidal impulses. The physician should remember that in some instances the family members themselves are involved in the individual's depressive reaction, and perhaps on an unconscious level their hostility toward the patient may make them careless in their supervision of him. I well remember an early tragedy which occurred when with strong protestations from the family that the patient's mother-in-law would be in the house at all times and would be responsible for close supervision of her, I let a patient go home. Later she committed

"Management of mental illness and emotional disorders cannot be the exclusive responsibility of psychiatry, simply because there are not enough qualified psychiatrists available to serve the many people who need such help."*

colleagues as they would be with patients in general. This is unfortunate because in many instances this prevents the psychiatrically ill physician from receiving treatment as early as possible and thus delays his recovery. In addition, it sometimes works to his disinterest since it allows him to remain ostensibly well, when he is actually ill, and thus disturbs or even cripples the relationship with his professional colleagues and patients because of his aberrant behavior. I have often thought that it would be a wise idea to have a special committee of County or State Medical Associations which could be called upon to act as a group in order to assist a psychiatrically ill fellow physician get treatment before he jeopardizes his professional career.

One special problem which is always disturbing is a depression with the possibility of suicide. Here, too, the primary physician must not temporize and must not equivocate. In most instances, if he feels there is any danger

suicide by the use of carbon monoxide after an absence of some two hours during which the mother-in-law did not even investigate to see where she was. During this interim the patient had ample time to wad paper into the chinks in the garage door and windows and start a rattletrap family automobile.

Somewhat the same caution should be used with addiction and alcoholism problems. If the physician is being asked to take responsibility for these problems, immediate control should be asserted over them. If the family refuses to accept this recommendation (the patient often is most persuasive regarding his ability to control the matter himself), the physician should then make it very clear that he cannot actually accept responsibility for a treatment program. A word of caution might also be introduced here about the management of addiction problems in hospitals. It is not unusual for attendants and others to have free enough access to the wards where addicts are housed so that

*Running commentary from talk by Dr. Tourlentes.

they will continue to be supplied with drugs even though they presumably are in a controlled situation in a hospital.

Newspaper accounts of dangerous, assaultive or murderous patients are very frightening to families and to physicians and sometimes cause a great deal of alarm in a given situation which is disturbing. These patients do occur, of course, but they are in our experience quite rare. The physician should be careful to obtain all possible information about such situations before jumping to the conclusion that a single person in the family is giving an accurate report when he describes the patient as dangerous. For example, the following case reports indicate the difficulties in evaluating statements from one member of the family:

A woman complained that her husband had attacked her. Confirmed reports from ancillary sources revealed that she had joined a religious cult which believed in "soul-mates" and had repeatedly insisted on her right to have these affairs, as a result of which her husband had, on one occasion, pushed her into a chair.

A Japanese girl reported that her father had been physically brutal to her and had assaulted her sexually. Confirmed reports revealed that he had repeatedly remonstrated with her regarding her promiscuous sexual activity, had at one time spanked her, and on another occasion (this was the "sexual assault") had bathed in her presence in a tin washtub in the kitchen as he had been doing throughout his life.

A woman complained that her husband frequently came home smelling of "vile perfume". He had her committed to a hospital but failed to win the confidence of the staff, most of whom felt that he had used the commitment laws to protect himself from the accusations of this mistreated woman. He admitted the perfume but stated repeatedly that he could not understand how it appeared on his shirts. Under pentothal, used in an attempt to develop other elements in her personality, she volunteered the information that she had purchased the perfume and placed it on his shirts. She said she was sure he was unfaithful to her and was using this method of tricking him into admitting it.

As mentioned above, it is not these very gross problems which cause most of the difficulty, but rather the more subtle problems with which the physician constantly has to deal. Making a

determination of predominantly psychiatric illness is not always easy; in fact, it might be well if the physician reminded himself that he is unlikely, except in the gross disturbances mentioned above, to find a condition which is entirely psychiatric. Rather, he should make an attempt—and here I am belaboring an often belabored point—to assure himself that he is dealing with all aspects of the problem. If he feels that the psychiatric elements or the emotional side of the problem are sufficiently important, he can then ask for a psychiatric consultation.

It might be worth mentioning, although I am sure you are well aware of this, that the kinds of complaints patients present depend to some extent upon their social classes. This is, of course, with particular reference to psychiatric problems. The upper class patients may complain quite forthrightly of psychiatric symptoms largely stemming from a sense of dissatisfaction with themselves. They will complain that they are not sufficiently productive, or sufficiently active sexually, or sufficiently astute in personal relationships, or something of that sort. They may even complain specifically of nervousness or fatigue. The middle-class patients are more likely to express their symptoms in terms of somatic sensations. Anxiety is a less common complaint, for instance, than palpitation, sweaty palms, tightness of the throat, or a lump in the stomach. In the lower class patient, psychiatric symptoms are seldom brought into the picture at all. These patients have a tendency to act out their psychiatric difficulties, and are more likely to be brought in by the family or some social or legal agency than to appear themselves. This is not, of course, invariably the case, and some individuals do have sufficient insight to recognize the fact that their antisocial or dissocial behavior is something of which they themselves do not approve.

Picking out these more subtle psychiatric difficulties depends, of course, primarily upon adequate history taking and upon observations. I am sure that psychiatrists are open to criticism in their ignoring of somatic symptoms, and we are quite proud of the fact that in our own unit our residents have picked up pituitary tumors, anemias, etc. On the other side of the

"Early, accurate, and positive diagnosis of mental illness and emotional disorders should be the goal and responsibility of all medical practitioners . . ."

coin, we are constantly amazed that the elements in the patient's history clearly indicating some kind of psychiatric difficulty, have simply not appeared in the history which was obtained by physicians apparently not sensitive to these possibilities. On a recent occasion, for instance, we saw an individual who was referred to us for evaluation of headaches persisting over an inordinately long period of time since he was struck in the face by a heavy timber while he was on a job. Simply by asking about his early occupational history the examiner was able to find that he had a far-advanced paranoid delusional system dating back to World War I and was actively hallucinating a good part of the time. He attributed these hallucinations to intense religious experiences and was constantly in a mental state of being directly guided by some celestial forces. The relationships of these psychiatric finds to his headaches was not clear, but inquiry revealed that he had simply not told his previous physician about any of these matters at all.

Observation has been rather thoroughly covered in textbooks and in psychiatric orientation which is a standard part of medical education these days. The physician should, of course, be alert to too much or too little activity; too much blandness on the part of the individual when discussing materials which presumably would ordinarily cause anxiety or shyness; facial expressions of depression, elation, etc. It may be worth a side comment to note that in view of the fact that many psychiatric problems are popularly supposed to stem from sexual conflicts, some physicians feel that they have established very early good rapport with a patient if they can get the patient to freely discuss sexual experiences, attitudes, etc. Actually, too early a discussion of material of this sort may indicate an uncritical attitude on the part of the patient, and may simply indicate that he has a psychotic value-system toward material of this sort which prevents his using ordinary socially acceptable controls appropriate even in the permissive presence of a physician.

The conversation itself, of course, is extreme-

ly helpful. The fortuitous introduction of apparently extraneous material, the juxtaposition of unrelated subject matter, the inability of the patient to communicate directly with the examiner—these are all elements which should be noted and do indicate the presence of some kind of psychiatric difficulty.

A word might be introduced here about the use of psychological test procedures. There are available standard outlines including such matters as vocabulary tests, the use of abstractions, the so-called "Benjamin proverbs", a sentence completion test, etc., which can be used profitably by the nonpsychiatric physician and may give additional information about the patient's personality characteristics.

The physician should not forget to obtain additional information from the family regarding changes in the patient's behavior, attitudes, conversation, etc. The family physician here quite often has tremendous advantage in having some knowledge of the patient's home, his history, and the members of the family, about whom he may exhibit some concern.

With reference to management, as I have already mentioned, it is essential that the physician use the existing relationship which he has with the patient and his family, to reassure them. Any hesitation or embarrassment on his part will inevitably be magnified by the family and the patient, and may result in their having considerable difficulty in arranging for treatment. Many patients, particularly depressed ones, tend to be ambivalent and indecisive, and it is essential that the physician be very definite in his recommendations.

Involuntary patients, particularly those for whom commitment procedures are indicated, present a special problem. Without going into all the details with reference to this, it is important to note that one of the most troublesome areas in a commitment proceeding is the matter of giving notice to the patient that he is believed to be mentally ill and will have to submit to an examination to determine whether or not he is. In most states notice to the patient is not required and may be waived if the judge or other authorities feel that it would be detri-

mental to his best interests. The recent monumental survey by the American Bar Foundation mentions the possibility that perhaps the disturbance to the patient lies not in the fact of the notice itself, but in the way in which the notice is given. Perhaps it would be useful if the physician who first sees the patient would take on himself the responsibility of explaining in a matter-of-fact and kindly but firm way the fact that it is believed that the patient does have some sort of emotional difficulty and that a formal examination will be necessary to decide this. While I have had no experience with this procedure, it does seem to me that it might offer some sort of worthwhile possibilities.

Lastly, it probably would be worth our while to spend a few moments on situations which, while austensibly psychiatric in nature, are not actually so. One case, for example, is that of the older person who may have been living in a family situation for some time without apparent difficulty, but who either becomes disturbed by change in the family traffic pattern, the increase of the congestion by the birth of a new child, or some other occurrence, and develops irritation, increased forgetfulness, some paranoid thinking, etc. The family seizes on these symptoms, partly in an attempt to get rid of what has been a burden but which could not be unloaded because of their own

guilt feelings. If the older person is now a psychiatric case, this offers an opportunity to relieve their own household of the difficulty. The physician should be very cautious about taking this kind of problem and referring it for definitive psychiatric treatment. Rather, he should explore the possibilities in the family itself to ascertain whether or not a change in living arrangements, the use of a baby-sitting service, or some modification of the actual physical arrangement of the household might not make it possible to keep the older person in the household, and reduce, if not eliminate, the strain on the family.

One last note might be simply a word of caution about the patient who complains of insomnia. The matter has not been completely documented but it is our impression that sleeplessness is a prodromal symptom of a great many psychiatric difficulties. Certainly, fatigue, worry, ruminative tension states and the like are accompanied with sleeplessness, and the resultant fatigue may further diminish the ego strength of the individual to such an extent that some sort of breakdown can occur. We have the impression that if the physician would move in rapidly enough with sufficient sedation to guarantee that the individual did get some sleep for a night or two some psychiatric difficulties, more or less serious, could be averted.

“Few patients choose to see a psychiatrist first. Treatment, if it is to be effective and timely, must begin in the office of the medical practitioner.

“It frequently is assumed that all psychiatric treatment is time consuming and that nothing can be accomplished by briefer methods. The art of listening and understanding is not that tightly tied to the clock. Nor is it necessary or desirable to give “psychodynamic” interpretations and formulations to most patients in order to help them.

“Almost all patients, sooner or later, bring significant emotional factors into the treatment situation, and our ability to recognize, understand, and manage these factors may have an important bearing on the outcome of other disease processes.”



guidelines to psychiatric diagnosis and treatment by the non-specialist

JULES H. MASSERMAN, M.D., Chicago

PSYCHIATRIC DIAGNOSIS, I SUBMIT, is easy to discuss. There is no cardiac, thyroid, or gastrointestinal biologic syndrome that can match the symptoms of anxiety, nor can psychomotor epilepsy quite duplicate what each of us has felt when we have been anxious. I sometimes make this clearer to medical students by saying, "Look—if you can't remember what the anxiety syndrome is, just imagine you have been asked this in a final examination, and your whole career depends on your answer, and if you fail this question you are going to be expelled from medical school. Now, describe what you feel."

But we try to protect ourselves from this kind of untenable reaction by regulating our lives, by being meticulous in our habits, by trying to order the universe, and if we get overly elaborate, we call this an obsessive-compulsive or phobic neurosis. Haven't we all experienced this when we have been under stress and tried to revert to some sort of regularity and predictability?

Or, have any of us not felt depressed—that is, literally pressed down by what seems to be a weight that cannot be borne? Feeling threatened, we do not sleep very soundly or eat well, are preoccupied, apprehensive, feel like going around and buttonholing our friends, and whining and crying a little bit to get some

succor and comfort. We think perhaps life is not worth living, and because it isn't worth living, and the world has punished us, we make everybody around us a little uncomfortable too.

Or who has not felt the desire to escape from this by getting too active, drinking a little too much, having too many friends, too many adventures, jumping from one thing to the other in a kind of vain attempt to escape from the underlying fear and anxiety through what we call hypomania? Instead of thinking of our own failures, we may prefer to build up a little system explaining how important we really are. And in the course of this we may feel we have made important enemies who are organized to keep a good man down. If you can follow this kind of thinking, perhaps you also can understand why a paranoid would want to think exactly as he does.

Finally, if the world gets too inimical, too unacceptable, who does not tend to revert to his own private world of wishful thinking and fantasy and of some particular unique symbolism, and then off in a kind of protective milieu of one's own making? We call these schizoid or schizophrenic reactions and then pretend they are confined only to "psychotics".

All of these, of course, may be accompanied by somatic resonances, such as feelings of weakness, cardiac disturbance, or various expressions of "psychosomatic" disorders. And if

"The newer psychiatric drugs, the so-called tranquilizers and energizers, are a mixed blessing. Their greatest usefulness is in institutional practice. They also are useful in selected cases in office practice. But they are no panacea, and there is a good deal of evidence that they are being prescribed too freely and with incomplete understanding by some physicians."

we take a few drinks or perhaps a sleeping pill too many, and experience a diminution of external perception and an impairment of concept formation, and reality testing illusions may build up into hallucinations and delusions, and we have the makings of a delirium. In other words, we have all experienced the larval underlying "psychic" phenomena that we see in our patients. So I tell my residents, as I am sure all good teachers do, that there isn't anything you can see on the ward that you have not experienced, and therefore can't sympathize with and understand; it is only a question of degree, intractability, and severity.

And now as to therapy. To retain his patients, every physician must practice psychotherapy every medical moment. Fortunately, most do it intuitively well unless they are personally disturbed and involve their patients in their troubles and/or they are handicapped by the occasionally pretentious obscurity or pompous vacuity of talks on psychotherapy—perhaps including this one.

I used the phrase "do it intuitively well" to mean what it says: a skill inwardly taught. Every adolescent learns how to deal with those who appeal to him for comfort and solace, else he soon becomes a social outcast. To this inner knowledge, the future physician's education is more specifically designed to *lead out* (L., *c-due*) and develop his capacities to serve his fellow man. Indeed, psychotherapy (Greek *psyche* = soul, *therapeien* = service) can be defined as *any* form of help any practitioner can offer (a) to make the patient healthier, happier and more creative and (b) his family, his associates, and society in general likewise pleased with the change. With these broad orientations, it becomes evident that all medical procedures are effective in curing (L. caring for) disease (i.e. un-easiness) *only insofar as they ease the three fundamental anxieties of man*. Correspondingly, our therapeutic methods have been—and will probably always continue to be—these three:

1. To rebuild our patient's confidence in, and his capacities to deal with, other human beings and thereby resume his desired role in the social order.

2. To alleviate his fears of pain, disability and death.

3. To restore his faith in the comprehensi-

bility and benignity of some universal order in which he has a place, a value and a dignity, whether he calls that order scientific, philosophic or, for that matter, religious.

How does the general practitioner do this? By employing his generalship in re-enacting his traditional roles of friend, expert and mentor as follows:

1. As *an ally in need*. Whether they admit it consciously or not, your patients come to you much as hurt, frightened and dubious children, appealing to their parents for instant, individualized, devoted and seemingly unselfish care. Ergo:

(a) Make it known that you wish to be always available, to them, and to be informed immediately if anyone requires your services. From a practical standpoint, if your patients believe you are sincere in this, your desired leisure is *less* likely to be troubled by frantic calls from patients who want to make formal reservations in advance for your attention.

(b) Place as few intermediates between you and your patient as is consistent with rounded service. Do not direct your secretary to enter a frequently misleading "systems-review" on a stereotyped form; do *not* assign the patient to a serial number in a crowded waiting room; do *not* shuffle referral laboratory reports between glances of the office clock while the patient, perhaps by now feeling thoroughly dehumanized and rejected, finally tries to get you to take an interest in *him*.

(c) Supplement the "medical history" in every case with an equally important inquiry as to whether familial, economic, social, or other life stresses may have preceded, and presumably contributed to, the patient's symptoms. This can be done briefly and tactfully by using common but easily understood euphemisms, such as inquiries about "overwork", "worry about the family", "business troubles", or other such inviting allusions that will be accepted by the patient as evidence of proper medical concern rather than unwarranted invasions of privacy. The argument sometimes heard that the "busy practitioner has no time for this" is particularly weak in this context, since a few minutes spent in such a survey will often reveal direct etiologic relationships between intercurrent life stresses and subsequent anxiety states, obsessive-compulsive-pho-

bic reactions, psychosomatic dysfunctions, prolonged depressions and other easily recognizable psychiatric syndromes—and thereby spare both the doctor and the patient from weeks to years of fruitless diagnostic searching and misdirected therapy.

(d) Unless absolutely *contra-indicated* (e.g., in homosexual, seductive, paranoiac or delusional patients) further signify your careful concern by doing at least a partial physical examination, if for no other reason than that the mother's pat, the king's touch and the prophet's laying on of hands have always been touchingly effective in promoting good feeling.

(e) Once begun, you must continue this personalized care of the patient—without ever delegating it wholly to others—until *he* no longer needs you in this central role. All laboratory reports and consultations must be mediated through you, and you must be his special friend and protector during subsequent hospitalizations, operations, and convalescence.

(f) Thus, whether or not your patient's disabilities are the salient aspects of his illness, your personal relationship to him may be the most important single instrument in restoring his trust in humanity, and your wise guidance may indicate how he can cultivate other interests, companions and friends. Or, if you feel that he will need more prolonged effort, only through you can he be led to seek specialized psychiatric treatment, or care in a mental hospital—after which once again you may be one of the most important links in his return to the world outside.

I need not here develop in detail the principle cautions necessary in this aspect of psychotherapy, since no sensible practitioner will permit the patients' dependencies upon him to become mutually paralyzing, and no ethical physician would ever exploit them for his personal satisfactions.

2. *Psychotherapy in Medicine.* But the patient comes to the physician because he has deep trepidations about more than his social relationships: he also fears for his health and his life. Here the doctor has an opportunity and privilege granted no other mortal: the use of his knowledge and skill in healing physical disease—a birthright some breeds of psychotherapists seem to have surrendered for some rather messy pottage. I myself am a psycho-

analyst—yet in addition to my couch and easy-chair I have an examining room fully equipped for physical and neurological examinations, a prescription pad, and a syringe for parenteral use as needed. So also, any physician takes measures as essential in "psycho"-therapy as any other when he:

(a) Prescribes *specific medications* for the removal or relief of symptoms; in this sense, *every illness* is "functional" in that the patient is disturbed only insofar as his current or potential functions are threatened. The best way to treat the desuetude that may accompany some forms of anemia is to administer the indicated iron, copper, liver extract, B₁₂ or other anti-anemics: the most effective available relief for the sword-of-Damocles anxiety and over-reactive assertiveness which characterize an epileptic, or the regressive dependency of Parkinsonism, is to prescribe the proper anti-epileptic or extra-pyramidomimetic drugs. As another example, I never treat a gastric or duodenal ulcer by "verbal psychotherapy" alone, since the antacids and antispasmodics are equally necessary to break the neurotic-psychomatic cycle.

(b) Non-specific drugs may be correspondingly useful, if judiciously employed. An agitated, distracted melancholic may much more readily listen to reason after a night or two of restful sleep induced by simple barbiturates, bromides or chloral hydrate; a patient in a state of exhausted lethargy may be helped back to activity by an amphetamine or some of the newer—though as yet insufficiently tried—stimulants. Here, however, my own experience has been that very few of the horde of "atartactics", "tranquillizers", "energizers", etc. which have recently flooded the market have much advantage over the standbys mentioned above, and many have adverse effects. But whatever drugs one chooses, one must again observe two all-important cautions: first, that sedative (sitting) or hypnotic (sleeping) medications must be used only for temporary relief while more basic life readjustments are achieved: and second, all drugs must be prescribed *with proper safeguards* when the patient is inclined to escape realities by cultivating addictions to the drug employed, by using it for suicidal gestures, or as leading to a facile substitute almost everywhere available; alcohol.

3. The Physician as Minister: The term *healing* as pointed out before is derived from the Anglo-Saxon root *hal* or *hol*, from which came not only *hale* (health) and *hail* (social greeting) but also *whole* and *holy*. Historically, the functions of physician and priest were once indistinguishable, and there is much in depth psychology to indicate that they are both still attributed to, and indeed more or less unconsciously assumed by, both medico and priest. Nevertheless, since in most—though not all—segments of our current culture it is customary to attempt to divide “worldly” and “spiritual” responsibilities, the broadly humanitarian practitioner of medicine should not be blind to his patients’ needs for transcendental beliefs and “spiritual comfort”, and should maintain no prejudices about collaborating with the minister, rabbi or priest of the patient’s choice in restoring to him a sense of belongingness and divine as well as mundane protection. In this way the physician may also earn reciprocal respect and cooperation from the men of the cloth.

The Techniques of Psychotherapy

Psychotherapy has sometimes been compared to a game of chess; the principles governing the opening and closing moves can be fairly clearly stated, but the maneuvers in between must ever be determined by the talent, insight and forethought of each player in dealing with an individual situation. I have tried to be as explicit as possible within the space of this brief essay, but if the reader still wishes to limit his concept of “psychotherapy” to the use of verbal communications, then perhaps a few pointers in this field will prove helpful:

1. Avoid labelling your patients with a one-or-two-word “psychiatric diagnosis”; such nosology is no longer taken as adequately meaningful by experienced psychiatrists. Try instead to understand the nature of the patient’s desires and tribulations, the effective (normal), deviant (neurotic) or unrealistic (psychotic) ways he tries to deal with them, and the relative accessibility of these patterns of behavior to therapeutic influences.

2. By the same token, avoid pseudo-analytic cliches such as “oral fixations”, “Oedipus complex”, “latent homosexuality”, etc. These obsolescing epithets may vent your concealed dislike of the patient, but they reveal little insight and furnish no leads to dynamic therapy.

3. In helping the patient deal with his problems, concentrate on the *real* and the *present*. It is true that the patient’s conduct evolved from his previous life experiences, but the latter cannot be relived and changed, whereas the best way to alter the patient’s reactions to his past is to have him re-explore and re-evaluate his *current* misconceptions of physical and social realities, and thereby readjust his total behavior. In essence, all therapy—as does all learning—consists of abandoning previous patterns as no longer adequate, and exploring and adopting new ones as more personally and socially profitable.

4. Never violate your patients’ trust; however, this does not mean that you must exclude conferences with—or even the concurrent psychotherapy of—his friends, family, employer or other persons in your practice who may be contributing to, or sharing in, his neurosis.

5. In no case should you furnish arbitrary directions as to major changes, such as the selection of a career, conception or adoption of a child, initiating or stopping a divorce action, etc. If the patient is helped to see clearly the alternatives and consequences of his behavior he will not need your advice: if he follows it blindly, dubiously or resentfully his actions are quite likely to circumvent your intent and backfire on you both—after which you will, quite justifiably, be blamed for the results.

6. Finally, if after using all your common sense and educated skill for a few weeks or months you are not inducing the satisfactory improvement, or if the patient seems too difficult or inaccessible in the first place, refer him to a psychiatrist—preferably one who, being broadly trained, avoids cults and doctrines, and can be as eclectic and versatile in his therapy as each patient requires.



panel discussion

DONALD OKEN, M.D., *Moderator*; C. H. HARDIN BRANCH, M.D.;
ROBERT DRYE, M.D.; HAROLD E. HIMWICH, M.D.;
JULES H. MASSERMAN, M.D.; SEYMOUR L. POLLACK, M.D., and
LESTER H. RUDY, M.D.

DR. OKEN: What is the place of group psychotherapy in present day psychiatric treatment?

DR. DRYE: Group psychotherapy is one of the most encouraging techniques which has been developed to combat the shortage that has been referred to many times. It has taken lots of forms and has tremendous range. Perhaps the most interesting is the smallest group, the family, which is being carefully explored these days. For instance, one of the problems that Dr. Branch referred to earlier, unreliability of family informants, can be handled by getting the family together for group discussion. At the other extreme, we have been very interested in developing large group techniques. The most well known example of this would be Alcoholics Anonymous where there has been a great deal of interest in using a large meeting to bring everybody's attention to certain common problems. Formal group psychotherapy, that is meeting in small groups on a regular basis to take up limited personal problems of various kinds, also is being explored very extensively.

DR. OKEN: How do we avoid unnecessary

psychiatric hospitalization of older individuals? Sometimes a family may pressure doctors to commit elderly individuals to mental hospitals for inappropriate reasons.

DR. BRANCH: There obviously is no glib answer to this. First I would try to see the reason for this individual's becoming a patient. Then I would try, if I could, to identify the possible changes in the household situation that might account for this difficulty. Let me give you just one example. You know that many times when old people are living alone they tend to "clutter," that is, to surround themselves with a host of mementoes, souvenirs, etc. I have an impression that this is done because their diminished perception makes it necessary for them to increase the intensity of their sensory input in order to remain in contact with their environment. Many households cannot comfortably permit this and if there is objection to it, the individual may be hospitalized simply because the family traffic pattern will not permit the kind of living arrangement which will be comfortable for the elderly person. Perhaps this would be a good research project for a combined group of architects and physicians.

"Better utilization of existing psychiatric facilities and the creation of additional new community-centered resources are the necessary and proper concern of all medical practitioners."

DR. MASSERMAN: The question of hospitalizing the aged is always a relativistic one. It is when the family finally gets to the point, as you will recognize, when the future looks bleak for them. Old Uncle Harry is just going to be a millstone around their neck, and definitely the way they look at it is that they won't be able to go away on vacation. He is smelling up the house, and so on. Actually if we can relieve them for a little while of this dolorous prospect, it does not look so bleak. This sort of thing has been worked out in England, particularly by a chap by the name of Kost who has been entrusted with just this problem. What he does is this. Either sends somebody into the home, which is about the cheapest way of really handling this difficulty, who babysits with the old fellow for a little while, and lets the family have a little relief, or if absolutely necessary, he takes the patient into the hospital, but never gives the impression

DR. RUDY: Another technique that we are finding more useful is the day and the night hospital, instead of taking them in for a three or four weeks period. We know that many of these people can adjust and the family can adjust to them if they are relieved for part of the time. For example, the somewhat agitated or cantankerous person, when left alone in the daytime under less stress, can adjust. But in the evening when the wage earners are home, the children are back from school, he becomes much more of a social problem. Partial hospitalization, with the keeping of the person in as a member of the family, has been quite successful. We do know certainly that psychiatry hasn't any solution to the problem of aging, other than the acute treatment probably of some of the immediate agitations and other sometimes aggressive or sometimes depressive types of behavior.

DR. OKEN: What about the use of psychiatric

"Antiquated and cumbersome commitment laws continue to emphasize legal and custodial aspects of mental health care at the expense of more prompt and effective medical management."

that he is going to keep the patient for more than a week or two or three. This is the target, the time, not hospitalized for life. If at the same time you can relieve the family, and yet keep their conscience going, so that they do not feel quite right about letting the old codger completely off their shoulders, this sort of compromise works. Partial relief, temporary relief, prolonged relief for two or three weeks if the old fellow or the old lady has gotten too much for the family, but then back to the home. This kind of intermittent or partial relief often works, and saves the old person from dying in the mental hospital, where he does not belong in the first place. Very often, by the way, the general practitioner has much to do with this, because it may be a temporary delirium. The old person may have a bladder infection, or he may have some sort of bronchitis that wasn't recognized, and it is tough for the family to recognize this. All they recognize is that the patient has become incontinent, or is careless with his sputum, and so on, and sometimes the medical care and intensive supervision for a few days is enough to reverse this.

drugs in the elderly?

DR. HIMWICH: If there is a definite amount of brain degeneration that cannot be replaced by anything that we know at the present time, the most we can hope to do is to use drugs that will ameliorate the situation. If there is anxiety, use an anxiety reducing drug, say like Thorazine. If there is depression, which very often occurs, a drug like Tofranil may be of use. As was emphasized by Dr. Branch and by Dr. Masserman, we must have a total approach. We must have what is referred to as the magic of the physician, but these drugs help to make the physician's efforts more potent.

DR. OKEN: I think that there is an implication in what you said that, by and large, the same drugs which can be used generally in other patients can be used in the elderly, and they can be used in practice as well as in hospitals.

DR. HIMWICH: But usually in lower doses.

DR. OKEN: What role can the family physician play in teenage, school, and delinquency problems? How far should the physician get involved in social versus medical problems?

DR. BRANCH: I don't know the answer to delinquency. I do think that many times the real difficulty lies in the failure of some government organization or agency to provide the proper kind of institution in which adequate restraint can be provided for these people. I think that we have demonstrated in some longitudinal histories that many of these adolescents simply have never learned that life expects a certain amount of discipline. School systems in most states have too few teachers, overcrowded classrooms, and underpaid people who cannot provide all of the remedies. And so the only answer is to expel difficult students from school. But you expel them to what? If society doesn't provide something for them, I do not think the physician really has anything he can do, and I would be sorry if psychiatrists and other physicians accepted the responsibility that really belongs in the community. I think in some of these areas we should simply tell our communities we do not know what to do about this, and we need special institutions even to apply the knowledge that we have.

DR. DRYE: I would like to be just a little more optimistic than Dr. Branch. I completely agree that you can't do this in a vacuum, that you must have an institutional structure for these children who require close supervision. However, if we take the general problem of school drop-outs, it becomes a different matter, because many students drop out of school with behavior problems who are not delinquents in the sense of confirmed anti-social behavior, but more in the sense of simply not getting organized in the school situation. It seems to me here again that we must go back to the problem of family pathology. The family physician may be in a particularly good position to understand that one of the reasons the teenager is not studying is because his mother is chronically ill, and the child consequently is neglected. This is something that the teacher may not have any way of knowing, and which the child may not make a direct connection about, but which the family doctor may be in a position to advise the school about. Similarly there are a number of children whose difficulties in school reflect treatable psychological problems which don't require institutional attention, but which can be handled on the outside. A

general rule of treating teenagers in that the most important goal of your whole treatment program is to keep them in school, because once the patient gets out of the school system, then his feelings of failure, the blocks to all kinds of future career choices, and so on, may lead to secondary difficulties which may be indistinguishable from the kinds of behavioral problems that have been referred to before.

DR. OKEN: How would you manage psychiatric patients in general hospitals without maintaining special psychiatric units?

DR. BRANCH: I feel this is possible and preferable. It might include psychiatric patients along with the general run of internal medicine patients, and might even include certain kinds of post-operative patients. This would be a floor where people need an encouraging kind of situation, and they would not need a great deal of special equipment. Hospital administrators may object to such an arrangement on the grounds that they don't want the nice quiet internal medicine patients put in with these noisy, smelly, crazy people. I always like to tell the story about the little old lady who came over to our psychiatric unit and breathed a sigh of relief because she had gotten away from the internal medicine floor, where somebody moaned all night, and a disturbed patient walked up and down the halls beating on all the doors, and she was delighted to get over where they are nice, quiet, and psychotic. I think this would work in most hospitals if you could get the administrator over the traditional idea that every room for psychiatric patients must have security screens and be devoid of projections from which people can hang themselves.

DR. OKEN: I would like to comment too, especially because I disagree partly with Dr. Branch's views on this. Perhaps this can be expected, since I am affiliated with a psychiatric unit in a general hospital. I think it is possible to hospitalize psychiatric patients on general medical units. This is feasible, and many patients can get along very well there. On the other hand, I think that there are advantages to a psychiatric unit, partly in terms of specially trained personnel, partly in terms of special equipment, and I think also in terms of the issue which Dr. Branch raised about stigma. I would like to turn that point around back on

him. Very often we try to admit psychiatric patients as medical patients to a general medical unit, sneak them in: And, of course, I know of many instances where patients have been admitted with a false diagnosis because of our own anxiety about admitting to the patient, to ourselves, and to the hospital administrator, that this is indeed a psychiatric patient. The patient may be admitted with acute bronchitis or some other euphemistic disorder. I think that it is time we came to grips with ourselves honestly when we have a patient who has a psychiatric disorder, whether it is a patient who is being treated by a psychiatrist or by a primary physician who is exercising the psychiatric aspects of his responsibilities. I think it is time we faced the situation openly and honestly, and I think when we do, it does the patient a great deal of good. One other point. I think Dr. Branch has indicated that the kind of patient he would hospitalize on such a unit would not need security screens, and that really the number of psychiatric patients that need screens and very elaborate special kinds of protection is overrated.

thing will be done about placing their child, that they will be given some sort of restitution and status, and so on, you have already changed their environment. Now this means that this is extending the scope of psychiatry into what really is a social science, and many of these centers we are going to build will have to have this sort of community collaboration, so that the psychiatrist can certify that this particular girl is not psychotic. As a matter of fact, she is not even a neurotic. She is properly concerned about her future and the future of her baby. Now, when you say that you don't change the environment of an anxious patient when he comes to you because of inevitable home difficulties, work, economic problems, and so on, you do change the environment, because you have now become his friend. You can perhaps mediate through your knowledge of the social resources what can be done for this particular individual, and, if you do that to the limits of your capacity as a physician or psychiatrist, as a good citizen, as a social worker, all the other roles you have to play, you still do modify the environment. This may diminish after awhile

"Preventive psychiatry is still in its infancy, but with the help of others, particularly practicing physicians, much can be accomplished in this direction even at the present time."

DR. OKEN: What to do with patients who are mildly or moderately anxious, who are on medication, and who seem to respond somewhat, but maintain their anxiety, perhaps due to the fact that the social situation hasn't changed? What about psychiatric referral, and what about the dangers of prolonged medication?

DR. MASSERMAN: This brings up the comments we're going to get and have already gotten when we try to over-extend the limits of psychiatry and therapy. For example, the question of delinquency came up just as an illustration. It so happens that about 85 per cent of the female drop-outs from high school are due to pregnancy. You don't refer these people to psychiatrists. They are pregnant. They need care. You say you can't change their environment, but if you do refer them to some place where they feel they are going to be protected during their pregnancy, that some-

the need for medication. As a matter of fact, it should diminish. Now this in one way restricts the responsibilities of the physician, but also in a sense expands them, because we also assume social responsibilities and need to cultivate the social resources of the community.

DR. DRYE: I would certainly agree with everything that Dr. Masserman has said, and perhaps add a couple of points. Actually, if the major goal in the usual psychotherapy is to enable a patient to cope better himself whatever the environmental stress is, this is the most common focus for short term psychotherapy done by a psychiatrist or any other physician or any other person doing psychotherapy. So that the first question is, are the environmental difficulties really this bad, or can the patient make some changes with the support of the physician? One of the surprising things about patients is that they are really more resourceful than they give themselves

credit for at the time they bring themselves to you. One example that occurs to me is the patient who had a mental defective son and another son with severe juvenile diabetes and a husband out of work because of a strike. And it seemed like she had a fairly good case for feeling depressed, and every time her doctor discussed going home with her, she became more depressed, and said, "Well, look at all of this". Finally, he said to her one day, "But you don't really expect to solve all of these problems in the hospital do you?" Whereupon she replied, "Well, why didn't you tell me this in the first place?" She got up and left, went home, and began to struggle with these problems. In other words, the frame of reference we set up in terms of the patient's expectations has a good deal to do with the outcome. There is, of course, some literature now on the dangers of withdrawal reactions with many of the common tranquilizers, particularly Meprobamate. There have been convulsive seizures reported on withdrawal, but only from very large doses. Much more than you would be using ordinarily in a situation such as this.

DR. OKEN: I might add that although I think we have to be rightfully concerned about fostering dependency in patients, that maintaining patients on drugs over prolonged periods of time may not be so terrible either from a straight pharmacological standpoint or from our concern about addiction. We are not concerned that the diabetic is addicted to insulin for the rest of his life. Why are we so concerned about these drugs in a patient with chronic emotional problems? It may be very helpful to maintain him on drugs. The important thing is the doctor and his relationship with the patient—not the drugs themselves.

DR. HIMWICH: I would just like to reaffirm what Dr. Oken has said. A diabetic, if he meets an emotional crisis, will get higher blood sugar, and you have to give him more insulin. If things go along more serenely, he gets less insulin. It is exactly the same with the dosage of any of the tranquilizers. You were correct about Meprobamate in large doses being addicting. But nobody finds that any of the phenothiazines are addicting. So if your patient is in an emotional upset, you give him larger doses of the tranquilizer. If he gets better, you reduce the dose. In every case you have him come to

you and talk the matter over with you, so that you know what dosage to give him and what support you can give him.

DR. MASSERMAN: I use relatively few drugs in my practice. But in work with animals, where I produce experimental neuroses and try out these various drugs, I can give you the verdict of the monkeys, who do not read the Sunday papers apparently, and simply respond as can be seen and measured. About the best tranquilizer is alcohol. That seems to disorganize most of the phobias, the obsessions, compulsions, with fewer side effects, at least the long lasting ones. Next comes the bromides, barbiturates, chloral hydrate, and the new miracle drugs rate way down with regard to effectiveness as demonstrable in these animals. On the clinical side I can quote perhaps the largest organized experience which is that of the Veterans Administration. I can give you that in a nutshell. Chlorpromazine seems to be a little better than most placebos, just a bit. The phenothiazines didn't vary very much with regard to their effectiveness. If you modify chemical structure, they are a bit more effective at lower dose, but a bit more toxic. There isn't a single one of the so-called antidepressants that have been demonstrated to be any better than the placebos. Other conclusions derived from this study are that you must not keep the patient on the same drug. It gets to be a magic potion. He becomes addicted to the name if nothing else. A good deal of the Meprobamate addiction is just of that nature. Meprobamate is a relatively ineffective drug. It rates quite low in control studies with regard to various effects, but Miltown has gotten to be quite a potent designation. Equanil is a nice euphonious term. Of course, everybody wants equanimity, and people who take it in huge amounts, getting more and more equanimity for their money, until what Dr. Drye has pointed out occurs, you get deprivation syndromes. I would like to repeat that a great many of the effects that we get, we mediate. These are medicines that have been highly over-rated, and no one knows precisely what the pharmacological effects are, although Dr. Himwich has made some nice excursions into the field. Until we have the judgment perhaps of another five or ten years, let us not start measuring these things against various symp-

toms, and even call them drugs that move toward target symptoms. This still has to be demonstrated.

DR. DRYE: I might add just one thing, and that is the image that one sees in advertising and the words that people use to describe syndromes. We gave a questionnaire to a group of 50 residents listing things right out of the drug company ads. For example, "the chronic withdrawn patient" is almost a trademark for the advertisement of Stelazine. We asked first year residents, who weren't too sophisticated, which drug they would use for the chronic withdrawn patient, and almost everyone of them put down Stelazine. I am sure they hadn't had enough experience with it, but they had read the ad.

DR. HIMWICH: There are three sides to every question. Your side, my side, and the correct side. There has been a lot of work on the drugs, clinical work, and I admit that there is a profound division among psychiatrists. Some of them find them good, the majority not. On the other hand, some of them who find the drugs good are among the leading psychiatrists in our country. But I would just like to say a word on the mechanism of action of these drugs. The barbiturates, alcohol, and chloral hydrate all work by the mechanism of depressing the highest cortical functions first, and with increasing dosage, they finally come down and effect lower and lower areas of the neuroaxis. On the other hand, the phenothiazines work in an entirely different manner. Like every other drug they work all over the brain, but their chief side reaction where they are most potent, is on the parts of the brain usually referred to as the emotional part, where the limbic system is, where the reticular formation is; and if possible, as was said, we should have many more years of evaluations, but it looks as if these are entirely different sets of drugs, and they cannot be compared for that reason.

DR. POLLACK: I would like to just add one remark about the use of tranquilizers. Their most important ally is time. We often forget that.

DR. HIMWICH: As was pointed out, no drug is a one-sided weapon. There are good sides to the drug and bad sides to the drug. Take Tofranil, which is an excellent antidepressant in some instances and is especially valuable in the endogenous depressions. It is statically proven for the majority of cases. If you give it in doses of more than 200 milligrams per day, you're apt to get toxic effects. They are not very serious, but you do get them. You get dryness of mouth, unsteadiness, sweating and constriction of the pupil. So if you can't get good results up to 200 milligrams a day, that would indicate that Tofranil has limited usefulness, at least in that particular patient. I would try to see just what effect some other drugs have. If more sedation is required, Tofranil may be given after breakfast and after luncheon, while Elavil, another antidepressant drug, should be taken after dinner or Tofranil may be stopped altogether and Elavil given in its place. If anxiety continues to be troublesome despite Tofranil, I would stop the latter and instead prescribe Niamid or any other inhibitor of the enzyme monoamine oxidase inhibitors (Marplan, Nardil, Parnate, Eutonyl). Please note however that no amine oxidase inhibitor should be given simultaneously with either Tofranil or Eutonyl.

DR. RUDY: I have a couple of things to add about antidepressants. Tofranil, in particular needs an adequate trial of at least two to three weeks before one can observe any effects. In Digitalis and heart disorders we have criteria that we can use such as EKG, edema clears up, and so on. In evaluating the neurotic depression, or at least those depressions that are not so severe, one must be very careful not to attribute the positive results to the drug. We know unfortunately that these conditions are cyclical, and that is one reason why it is so difficult to say what is causing an improvement. Patients will run for a period without any drugs and get better, and a certain amount of enthusiasm should be tempered regarding the positive effects of these drugs on what appears to be a self-limited disorder.

"As important molders of community opinion, practicing physicians can do a great deal to influence promising young people to seek careers in psychiatry, social service, psychology, psychiatric nursing, and other mental health professions and technical fields."

'Action for Mental Health In Your Community'

The problem of mental health and its significance on the local level will be the topic of a special conference—"Action for Mental Health In Your Community," October 19, Sherman House, Chicago.

Sponsored by the ISMS Committee on Mental Health, the program aims at establishing concrete methods of action on the local level.

The program:

8:30 A.M.	Registration
9:00	Opening Remarks —Harry Phillips, M.D. Chairman, ISMS Committee on Mental Health
9:05	Welcome address —Harlan English, M.D. President, ISMS
9:15	"Mental Health in Illinois—Facilities and Care" Harold Visotsky, M.D., Director of Mental Health Department, State of Illinois
9:45	"Community Planning Programs" —James W. Osberg, M.D., Director Mental Health Study Center, National Institute of Mental Health
10:15	Introduction of Group Discussion Group 1 "Hospital Community Program" — Donald Oken, M.D., Associate Director, Institute for Psychosomatic and Psychiatric Research and Training, Michael Reese Hospital
	Group 2 "Education of the Physician" — Hyman Muslin, M.D., Assistant Professor of Psychiatry, University of Illinois College of Medicine
	Group 3 "Implementation of Mental Health Program (Man-power)" — Robert C. Drye, M.D., Director of Education, Illinois State Psychiatric Institute
	Group 4 "Alcoholism, Narcotic Addiction, Childrens' Problems and Geriatrics" — William Hollister, M.D., Chief, Research Utilization Branch, National Institute of Mental Health
	Group 5 "Operational Research" — Louis Boshes, M.D., Associate Professor of Neurology, University of Illinois College of Medicine
NOON	Lunch
1:30 P.M.	Discussions of Sub-groups (each of the five main groups will break into three sub-groups for specialized discussion).
3:00	Break (coordinators will prepare summary and recommendations)
3:30	Coordinators present summary of discussions
4:30	General summary and conclusion — John Cowen, M.D., Chief Coordinator Clinical Assistant Professor of Psychiatry, Chicago Medical School
5:00	Closing Remarks —Dr. Harry Phillips

Mental Health in Illinois

FRANCIS J. GERTY, M.D., *Springfield*

IT IS VERY IMPORTANT in the field of mental health services to define the roles of the several agencies and persons engaged in extending these services to the public. These several groups which have a part in giving care and treatment to the mentally ill are four in number: 1) private agencies and persons in the community, 2) Local county, town or city governments, 3) state governments, and 4) the federal government.

Historically, the treatment of mental illness began in the community. It was given in private homes, or in whatever public facilities happened to be available — jails, almshouses, and special institutions usually under charitable organization management. The provision of specialized care through any governmental agency was quite uneven and haphazard. Because of the breakdown of meeting service needed in the communities in this manner, some local communities did establish asylums for the insane, often in connection with their county infirmaries. In many parts of the country such institutions survive under the local governmental authority, but this is not the rule. In general, the states have taken over responsibility for the care of the mentally ill. This is usually institutional care, but there are extensions into supervision in the community of former hospital patients and the offering of outpatient services in some areas, sometimes under direct state supervision and sometimes through direct contribution to private clinics. Also, in some of the states special institutes have been established to promote training and research and to relate these to the service which the state provides. Finally, the federal government has entered the field, beginning first with care extended to persons whose mental breakdown was directly or indirectly con-

nected with military service. From this beginning, the contribution of federal funds for research, training, and treatment in the mental health field has increased enormously — at first slowly, then with considerable expansion of services as troops were mobilized for war service, and finally in the post-World War II period in the direction of training, research, and support of community services through the National Institute of Mental Health.

As these developments have taken place, three conditions have forced themselves upon our attention.

1. The expense entailed is enormous in its total and bears a direct relationship to a very high incidence of mental illnesses in their total. This incidence of mental illness is as great as the incidence of all physical illnesses combined when viewed in the light of hospital statistics.

2. General observation is confirmed by the report of the Joint Commission on Mental Illness and Mental Health that in spite of the total expense, the quality and quantity of care afforded is so inadequate that it justly may be termed poor on the average. Under some conditions of treatment the quality of care and the results are excellent, but the expense on an individual case basis mounts very high.

3. There is no satisfactory definition of the role which each of the four general agencies — private, local governmental, state governmental, and federal governmental — should play. On the contrary, there is a confusing overlap in the roles of these agencies. That they should be mutually supportive of one another would be desirable, but to what extent and how are questions that have not been satisfactorily answered so far. The answers are hard to find. This is so for several reasons. There are different opinions concerning the philosophy of governmental responsibility in supplying support for services to individuals directly, or to communities as intermediaries, whether viewed on a local or statewide scale. The community

Former Director, Illinois Department of Mental Health.

Delivered at the 123rd Annual Meeting, Illinois State Medical Society, May, 1963.

that has an intermediary role may itself be a governmental agency receiving contribution from another governmental agency higher in the hierarchy.

A very interesting table appears in the final report of the Joint Commission. It concerns the hypothetical costs to federal, state and local governments of doubling expenditures for public mental patient care in five years, and tripling the costs in ten years under a proposed matching plan of billions of dollars. It starts out with the distribution of expenditures in the first year. This year may be taken as representing approximately present costs and their distribution. State expenditure is about one billion dollars, and federal grants without local participation is about one-tenth of that amount, with the grant total being one and one-tenth billion dollars with no local participation or federal grants for local participation being included.

Moving ahead to the tenth year, the hypothetical cost of three billion dollars is presumed to be met with state expenditure of one billion dollars; federal grants without local participation — one billion dollars; local participation — one quarter of a billion dollars; and federal grants for local participation — three-quarters of a billion dollars. Thus, it will be seen that the proposed trend is to pass the expense to higher governmental levels.

The summary of the final picture is this. The federal government contribution would be one and three-quarter billions, the state contribution would remain at approximately the present level of one billion, and the local participation would be increased from practically nothing to one-quarter of a billion. This table, of course, says nothing about defining the role of governmental agencies in any terms other than dollar contribution. Is it possible to define the roles of the four groups initially mentioned with reference to responsibilities, functions, and procedures in affording adequate services to the mentally ill? If it is possible to define roles in this way, will this help to define responsibility for meeting the expense of providing services with any realistic possibility of actually getting the several groups to bear the expense within their means so that total centralization of responsibility with reference to both expense and program determination does

not become inevitable? There are probably some who believe that this termination is both desirable and inevitable. There are others who believe that such a termination constitutes a real threat to a free democratic society.

Hypotheses, and plans and designs based upon them, have their place in our thinking about this problem. However, in working it out practically we shall find great difficulty in getting agreement as to philosophy and as to practical commitment to a program which is chiefly hypothetical and represents a long term project rather than a step-by-step procedure according to an actual design. My preference is to view this whole matter from the viewpoint of present positions and a progressively stepped-up design that involves not only a request for the money to support it, but a fairly clear and definite statement of the stages by which it may be achieved. In order to do this, it is necessary to have a commitment to a guiding philosophy and a specified design.

First, as to the philosophy. We must remember that originally local communities, through private or local governmental agencies, did not meet their responsibilities in the mental health field. We must ask ourselves, "Will it be possible to get them to do so now?" If the answer is "No", we must again tread the path of appeal to a higher agency. The Joint Commission Report states that the next higher agency, the state, has failed in its mission also, and then goes on to suggest an appeal to the federal government which represents our national summit. No suggestion so far has been made that we proceed very far in crossing international lines, although there is a World Health Organization with its mental health division and UN activities in this area.

At the present moment, the states have the principal responsibility here. None of them has been bearing it so as to gain unqualified approval. I wonder if it would not be well, for a while, for them to experiment with methods of bearing their responsibility better — methods based on thorough consideration of the nature of mental illnesses, of the possibilities that present for their satisfactory treatment, a survey of the needs for mental health services as they appear in the state's population, and of assemblage of the means into a working organi-

zation to meet the needs. In doing this, our attention should be directed to three of the general agencies: private, local governmental, and state, with the state being in the ascendant position because it is at this moment most prominently in the field and has developed the chief legislative sanctions for its operations.

Nature of Mental Illnesses

The range of mental illnesses is very considerable in nature. Patients may suffer from mental retardation of one degree of severity or another. While from a psychiatrist's viewpoint the mental health aspect is the most prominent one, social, economic and educational aspects are extremely important, and from the viewpoint of others than psychiatrists, may often exceed the psychiatric aspects in this importance. More and more attention is being given to emotional disturbances, pre-psychotic and psychotic states in childhood. The more closely we look into this category of cases, the farther back into childhood, even into infancy, do we find that we are led. While child guidance programs formerly related chiefly to children between the ages of 3-13, it has become increasingly evident that the adolescents and young adults have mental health problems of wide range that challenge our attention.

Among adults, the total psychiatric range is very great, extending from psychoneurotic through functional psychotic to deteriorative organic conditions — all of which have their childhood and adolescent counterparts. Addictive conditions, whether of narcotic, alcoholic, or other varieties, are placed in a special category, although their roots are nourished in the same soil that produces neurotic and psychotic illnesses. Etiologically, in chronic age range and in diagnostic classification categories, there is a wide spread of generally related but widely different conditions both in essential nature and in the possibilities that present for treatment.

Possibilities of Treatment

What are these treatment possibilities? They must be sufficiently varied to be suited to the nature of the conditions treated. The evidences of illness are first noted in the home and in

the community. The first treatment which they are likely to obtain will be that in the community, although it may be poor and unsuitable. It may be office, treatment, mainly psychotherapeutic or mainly medicinal. In some cases hospital treatment may be called for. Only in recent years have private hospitals agreed to officially open their doors to psychiatric patients and provide special facilities for their treatment. Here, too, the treatments may range from psychotherapeutic to medicinal, physical and electric therapy and even surgery, as well as milicu, recreational occupational, and other forms of special therapy. We cannot omit mentioning restrictive treatment — confinement because of real or imagined dangers to the patient or to others. In the administration of all treatments, the element of clinical judgment should be the controlling factor. That remedy which is the most potent for giving the patient help is the doctor who exercises the clinical judgment. This must be the case since often we have no specific remedies ideally suited to overcoming the effects of the illness. It must also be recognized that the clinical judgment should have control and influence over the whole therapeutic setting, and that in favoring this influence many other persons besides physicians will play important roles in treatment.

The assemblage of treatment resources in a well-designed plan of management can do a great deal to provide early treatment, return patients to their communities quickly, prevent accumulations of patients under conditions not suitable to their welfare, and to ameliorate illnesses which cannot be completely overcome.

Survey of Needs

In any attempt at mass therapy, it is necessary to study the nature of the population which needs the benefit of therapy with reference to its distribution, its points of concentration and the incidence of the kinds of illnesses that occur in that population. It is necessary to know where we are most likely to find the manpower which is essential to take care of the need. It is necessary to know where the facilities are located which are needed to train the men to meet the need. It is necessary to know where treatment facilities should be located so that they are accessible to the total

population of a state, and particularly accessible to the places where concentration of need is the greatest. All of this must be thought of with reference to the comprehensive range of mental illnesses. Mental illnesses are not actually categorized and separated one from the other to the extent that they are classificationally in the minds of specialists. The facilities must cover the full range of need and mental health services must be coordinated so that there may be ease of referral from one service division to another. The facilities provided should be located so that the trends of population for the future are given due consideration. No facility provided must be considered as being within itself fully adequate in all respects. Its relationship to all other community resources, whether for medical treatment, such as hospitals or clinics or public health department facilities and personnel, is of great importance. Any new facilities provided by the state should be designed with special reference as to how they will be related to existing facilities. The improvement, transformation, or discontinuance of existing institutions should be reciprocal to the operations of any new institutions introduced into the picture. It would be well that all new institutions be kept small enough so that their treatment performance is one that can be conducted and staffed to provide an example of what is best in treatment and which may be extended into the community as indications for extensions occur.

These are the criteria for what should be included in the design, though still not spelled out in elaborate detail. It is suggested that in making the design for the future these criteria be kept in mind and that the design be placed into operation in districts of manageable size and with as uniform coverage of the total area of the state as possible.

Assemblage of the Means to Meet the Needs

The design suggested has to do with the actual rendering of service. In order for it to remain viable and to grow, it will have to be related to a training program under central administration and definitely geared to the end of providing trained people to work in the service institutions. This is no small under-

taking. Not only must the training institute be dedicated to the specific purpose, and itself be designed to accomplish this purpose, but the general regulations which affect employment of people in service institutions must be flexibly and fluidly effective so that they may recruit and retain the people who are trained. This is one of the most difficult tasks of all because regulations tend to become frozen and are modified with difficulty.

In essence, it is my suggestion that the state, now being in the position of prime importance in administration of affairs pertaining to mental health and mental illness, provide a bridgehead into each community. The object of the bridgehead is not that the state build all of the roadways of service into the community, but that it serve as a center of stimulation of community effort both in privately conducted agencies, and in local governmental agencies. If this process of stimulation and education is kept up consistently, it is to be expected that a greater share of local responsibility will be obtained for the provision of service where it will count the most, that is, directly in the community. The more of such stimulation and education as will occur, the less likelihood there is of passing the burden of responsibility and of support to more and more remote places so that the lines of communication become lengthened and weakened and rendered very expensive to maintain. The only way they can become strengthened, when this is the case, is by an increasing amount of central control. This, of course, will not decrease the ultimate expense which must always be derived from local sources in the end. This being the case, it is proposed that the state now define its role in mental health and define it in terms of the limitations of its responsibilities toward local communities with their private and local governmental agencies and design its program so that these local agencies will, in turn, have to define their roles and their responsibilities. While this will not be easy, it would seem to be better than if these communities should accept gifts in large measure from an even more remote central government than the state and find this gift to be one which must be paid for with a compound interest and a high overhead.

The View Box

LEON LOVE, M.D., Chicago

This 60-year-old female entered the hospital with a 2 day history of severe right upper quadrant pain and vomiting. The pain radiated to the back and was described as cramp-like. She was a known diabetic.

Physical examination revealed a well-nourished patient in acute distress. The blood pressure was 160/110, the temperature 103.6°. She was diffusely tender, particularly in the right upper quadrant. The bowel sounds were infrequent.

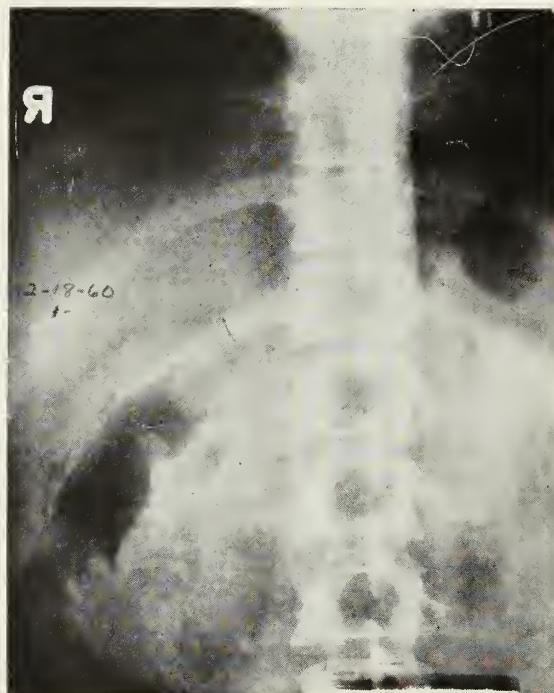


Figure 1

What is your diagnosis?

- 1) Cholecysto-duodenal fistula
- 2) Acute pancreatitis
- 3) Emphysematous cholecystitis
- 4) Volvulus of the cecum

(continued on page 231)



Physical Inventory

For The Older Hunter

JULIUS M. KOWALSKI, M.D., *Princeton*

He is paunchy, has not experienced sustained physical activity for years, complains of a backache following the yearly cleaning of the basement, needs bifocals, and hacks hourly with a cigarette cough. Now he wants to go on a big game hunt. Should he? Can he? Sure, he can!

By the time the average man is in a position financially, family-and-employment-wise to fulfill his lifelong dream of a hunt in remote wilderness areas, he is middle-aged or beyond. Age, in itself, is no deterrent for such activity since most outstanding explorers, hunters, mountainmen, foresters and wilderness travelers are in this age bracket. To them, the rigors of the out-of-doors are a daily encounter, with only occasional periods behind the desk in cloistered comforts — just the opposite of their urban brothers.

But the toll of years leaves its mark. The progression of anatomical, physiological and pathological changes correlated with age is predictable, within limits, for a given age group. A finite percentage in a random sample will develop, for example, glaucoma, hypertension, diabetes, bronchogenic carcinoma or prostatic hypertrophy among other degenerative or pathological conditions. The anticipation of these changes, guarding against their development (if at all possible) and treating altered conditions in incipient stages is the scope of preventive medicine, a fruition of highest rewards for minimal cost and discomfort.

Many anatomic and physiologic changes are subtle, slowly developing, noisome, and a source of concern to the aging man rather

than being dramatic or life-threatening. Too often, unfortunately, the serious conditions are insidious in onset also. It is only the physician who can make the judgment between the slightly abnormal but harmless, and the silent, painless, but grave.

He who holds respect for his body comparable to that for his automobile, will have peace of mind and enjoy sustained good health. The average auto, costing several thousand dollars, depreciates in a few years to several hundred dollars or a heap of junk, despite periodic maintenance and, in many instances, a complete check-up in spring and fall. Does the average human machine receive similar diligent care — especially the older male? Hardly so. But wife and offspring are hustled to medical attention for minor complaints by the tough old man who has no truck with such nonsense.

He who would be up before the break of dawn, struggle into damp clothing, eat a greasy breakfast, know the sting of wind-driven sleet upon the face, or the eye discomforts from hours of dazzling sunlight — he who yearns to be glued to the saddle for hours, or for change of pace will bruise his shins straddling windfalls to take a vantage point, or perchance ascend a rocky ridge on all fours or even squirm laboriously upward on his belly — he who accepts this challenge day after day, returning in darkness beaten and exhausted to an air mattress in a chilly tent for repose only to repeat it all tomorrow — he should consult his physician. (And not a week before departing for the field, but preferably several months before.) His physician can evaluate capabilities, limitations, suggest corrective measures, re-

strict specific activities, and advise him for anticipated stresses. The final appraisal of one's physical status can best be accomplished if the patient is unhurried since several visits are sometimes necessary for thorough evaluation of given systems.

An older man's body is truly tested on a hunt for elk or moose. He lives for 10 to 14 days or more in an environment which calls for stamina and physical labor to which he is unaccustomed. The face and neck are exposed now to sun, then pelting rain of a mountain squall and to the incessant wind. A large bandana handkerchief or parka hood is often necessary for protection. Ranchers wear a wide-brimmed hat and bandana around the neck for good reasons. In a day or two the lips will crack or blister if not coated; vaseline, oil or even lipstick will do. Gloves of some sort are desirable to protect against abrasions, minor lacerations or blisters which will certainly occur from climbing, ax handling and other manual tasks. Large mitts to accommodate the gloved hands are a necessity in freezing weather.

The eyes need protection from the brilliant sunlight and reflected glare of higher elevations during all seasons. Sunglasses of hardened glass such as shooters' glasses which have wide lenses and hooked ear pieces are the best choice; prescription lenses for those needing bifocals are available also. The easy fitting reading glasses used in sedentary occupations won't always remain in place when one is astride a trotting horse or jumping from rock to rock across a mountain stream. An extra pair in an inside pocket is good insurance. The glasses protect the eyes against sudden gusts of dust and face-slapping brush. But most important — no firearm should ever be discharged without first protecting the eyes.

Ears that have not been examined for some time may have an accumulation of cerumen. Infrequent bathing, or none at all, as in a hunting camp, plus the daily dust from the trails, can result in impaction in the external canal. The annoying sense of fullness in the ear, diminished hearing, and sometimes pain, could have been avoided by prior cleansing. Cerumen impaction can augment dizziness, especially when other physiological adjustments are occurring at altitude in an unacclimated individual.

Older persons do not have the many tooth problems that afflict the younger. Dentures, full or partial, by then are well-fitted, and filled teeth have been quiescent for years; but such a tooth, having given no trouble with its compensated infection at lower elevations, becomes a jumping-jack in high country. Aerodontia, resulting from an unhealthy tooth, and other dental pathology can be prevented before invading remote areas.

A lowlander upon reaching high country will quickly notice a shortness of breath, pronounced thumping in the chest and even tachycardia after only moderate physical effort. These findings will cause him to rest more frequently or curtail his activity. It takes about 4 to 6 weeks to become acclimated to the rarefied air.

Not all big game hunts are as strenuous as mentioned above, nor as fatiguing day on end for every member of a hunting party, but that possibility exists. If one is unable to "take it" for lack of conditioning, disability or prior illness, he should pocket his pride and pull up short. It is a mark of sound judgment when one recognizes that he is a has-been.

The cardiovascular and pulmonary systems are given the ultimate test in mountainous regions. Cardiac and pulmonary reserve should be established under medical guidance before burdening them unduly in the field. Men with cardiovascular conditions which fall into Class A or Class B of the therapeutic classification of the American Heart Association can, with care, be counted among a hunting group. Post coronary and angina patients who now perform all the physical tasks they did prior to their illness, are faithful in taking medication and are attuned to their limitations, will be deemed the chiefs of a camp and accorded such respect. Likewise, controlled hypertensives, fully active cerebrovascular accident patients and stabilized cardiac decompensation cases wear a badge of distinction. No wood chopping for them.

The emphysematous or asthmatic patient should not attempt unusual physical activity without medical consultation. The desperate straits to which he can plunge from minimal indiscretions calls for a strict individualized regime.

Muscular soreness and cramps, particularly in the legs and back, are common for everyone

in camp during the first few days despite previous conditioning. The muscle relaxants developed in recent years are helpful in ameliorating distressing muscular spasms. Contusions—and there will be many—regress significantly with the use of enzyme products as has been proven in contact sports.

The digestive systems must adjust to the hunting routine of an early, heavy breakfast, a sandwich lunch with canned juice or water for beverage, and a full meal at base camp late at night. The fried foods may upset a sensitive gallbladder or predispose to bloating. Quiescent ulcers, given such a diet and perhaps

followed by an alcoholic wash, are sure to make their presence known. Constipation is a likely problem resulting from dietary change and dehydration. Thrombosed hemorrhoids or painful rectal fissures could be anticipated.

In the older man, the possibility of prostatism is ever present, more so when he is unaccustomed to hours of saddle thumping. A suspensory for a pendulous scrotum affords blissful comfort for otherwise battered testes.

Though the pains be many, the pursuit of game futile, the undertaking costly—the spiritual rewards from probing high country are priceless.

The View Box—diagnosis and discussion

(continued from page 228)

Diagnosis: Emphysematous Cholecystitis

The X-ray is pathognomonic for this rare disease. Radiological manifestations can be observed from 24 to 48 hours after the onset of the disease. There is an intramural halo or gaseous collar surrounding the fundus of the entire gall bladder produced by the infiltration of gas pockets that detach the mucosa from the muscular layer or the latter from the serosa. The gall stones are visualized surrounded by air. The disease is more common in diabetics. The organisms probably responsible are *E. Coli*, *Clostridium Welchii*, *staphylococcus*, and *streptococcus*.

REFERENCE

1. Ellis, F.: Acute Pneumocholecystitis, British Journal of Radiology, 34:462-464, July 1961.

CASE REPORT

Rupture of a Ventricular Aneurysm Following Myocardial Infarction

JOHN L BOHAN, M.D., FRED STANSBURY, M.D.,
and FRANZ LENCH, M.D., *Galesburg*

WHEN A PATIENT with an acute myocardial infarction develops a heart murmur for the first time, the clinician is presented with a new diagnostic problem. The proper interpretation of this sign is of great importance in the management of the patient's illness. If an aneurysm of the ventricular wall develops, this sometimes produces a heart murmur. Such a complication was the cause for the systolic murmur in this

From the Galesburg Cottage Hospital, Departments of Medicine and Pathology, Galesburg, Illinois.

case. However, other signs, diagnostic of an aneurysm, were not as clearly defined.

Report of a Case

This 44-year-old physician became ill on Saturday, May 7, 1960, with pain over the shoulders which radiated down both arms to the elbows. He felt that this might have been due to exposure to cold air. Similar trouble plus precordial pain was present on Sunday, May 8th. During Monday, May 9th, he had bilateral arm and precordial pain plus a fever of 102°. Throughout Tuesday, May 10th, the pains and fever

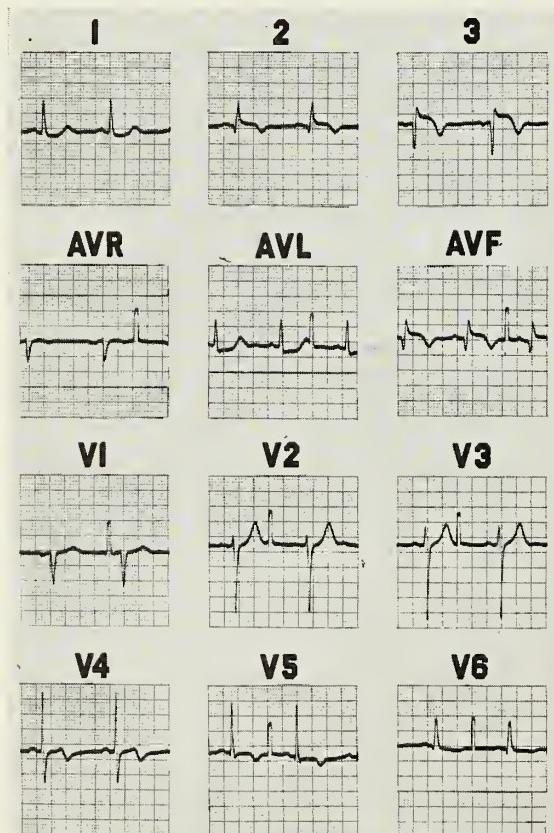


FIGURE 1

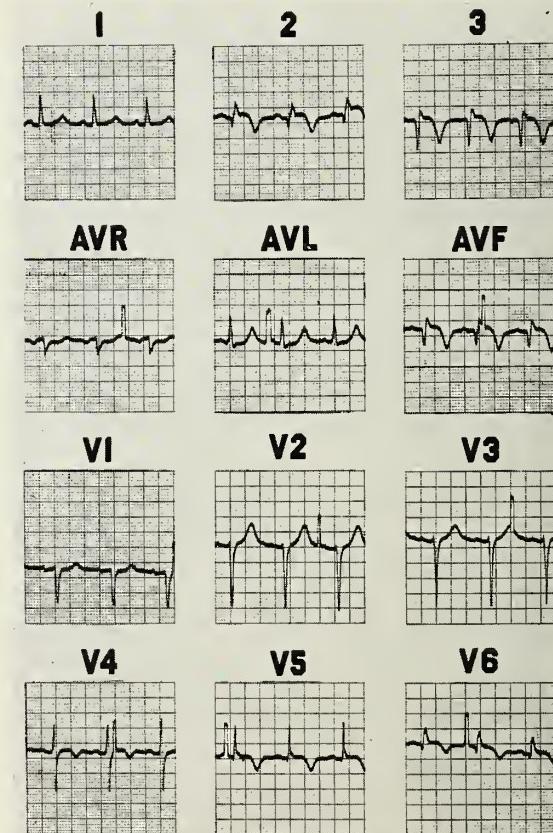


FIGURE 2

continued and he began to perspire. The patient was first seen at home on Wednesday evening, May 11th, four days after the onset of symptoms. He volunteered that exertion seemed to make the pains worse. There had been no dyspnea. The blood pressure was 190/110 mm Hg, temperature 101°, the heart was not enlarged, tones were clear, rhythm was regular, and no murmur was heard. He was admitted to the hospital and was transported by ambulance.

The patient related that during most of his adult life he had been nervous. For the 10 years since 1950, he had known of hypertension. At first this was intermittent. During the stress of taking examinations or while assisting at surgery, he frequently became emotionally upset and found it necessary to lie down and rest. Blood pressure elevations as high as 300 mm Hg were recorded on these occasions. Persistent hypertension had been present since 1955.

On physical examination, the temperature was 98°, pulse 92, respirations 20, and blood pressure 144/104 mm Hg. The ocular fundi showed grade one arteriosclerotic changes. The chest wall was normal and the lungs were clear. The left heart border was 10 cm from the mid-sternal line, the tones were clear, the rhythm regular, and no murmur was heard. The liver and spleen were not enlarged. All fingers were clubbed but this was described as a family characteristic. The laboratory reports were as follows: non protein nitrogen 43 mg. per cent; erythrocytes 4,940,000 per

cubic millimeter; hemoglobin 16.4 grams; leukocytes 11,900 per cubic millimeter; urinalysis normal; sedimentation rate 19 mm. per hour Wintrobe; S-GOT level 28 units; electrocardiogram was abnormal and a posterior myocardial infarction was suggested. The patient was given oxygen, and pentaerythritol (Peritrate®) tetranitrate with phenobarbital and meperidine (Demerol®) for relief of pain.

For the next five days precordial and bilateral arm pain persisted, but the shoulder pain, chiefly on the left, was particularly distressing. The patient was restless and apprehensive. Daily blood counts, sedimentation rates and S-GOT levels showed no change since admission. On May 17th all of the pains became less severe but a fever of 100° developed. A temperature elevation persisted until June 23. The electrocardiogram showed definite changes of a posterior lateral myocardial infarction (Fig. 1). On May 18th, the precordial and bilateral shoulder pain became aggravated by respiration. No murmur or friction rub could be heard. The white blood count rose to 15,100 per cubic millimeter and the S-GOT to 180. The sedimentation rates was 18 mm. per sixty minutes.

Early in the morning of May 21st, the patient became significantly worse. The precordial pain was severe and aggravation by breathing was very noticeable. The left shoulder pain became almost unbearable. Dyspnea of a major degree developed along with a severe cough and singultus. Perspiration was excessive. The blood pressure had dropped to 130/80 mm Hg, heart tones were clear, rhythm regular, and no thrill, friction rub or murmur were noted. Over the lungs there were no rales or dullness. For the next few days the patient's condition remained unchanged. On May 21, the electrocardiogram continued to show the posterior lateral myocardial infarction but in addition there was more elevation of S.T. segment in limb leads 2, 3 and AVF. A deep wide Q wave was present in each of these leads. These findings persisted through-out the remainder of the illness (Figs. 2 and 3).

A soft systolic murmur was first heard on May 25, eighteen days after the onset of the illness. During the next several days this murmur gradually became louder. The point of maximum intensity moved over the lower precordium and varied in location from day to day. The murmur persisted throughout the remainder of the illness. At no time was a thrill felt or a friction rub heard.

The patient became progressively worse. The precordial, bilateral arm and shoulder pain persisted but gradually diminished in severity. He remained quite restless. Starting on June 6, and for a week, the temperature varied from 100 to 102. Dyspnea was a prominent symptom. On June 8, he complained that his whole body ached and he had a severe chill. Coughing occurred in hard long paroxysms. A gallop rhythm was heard on June 11, at which time his sputum became blood streaked. This persisted for the next several days. Physical findings on examination of the lungs were usually normal but at times rales could be heard over the lung bases. A portable chest x-ray on June 8 revealed minimal pulmonary congestion; on June 11,

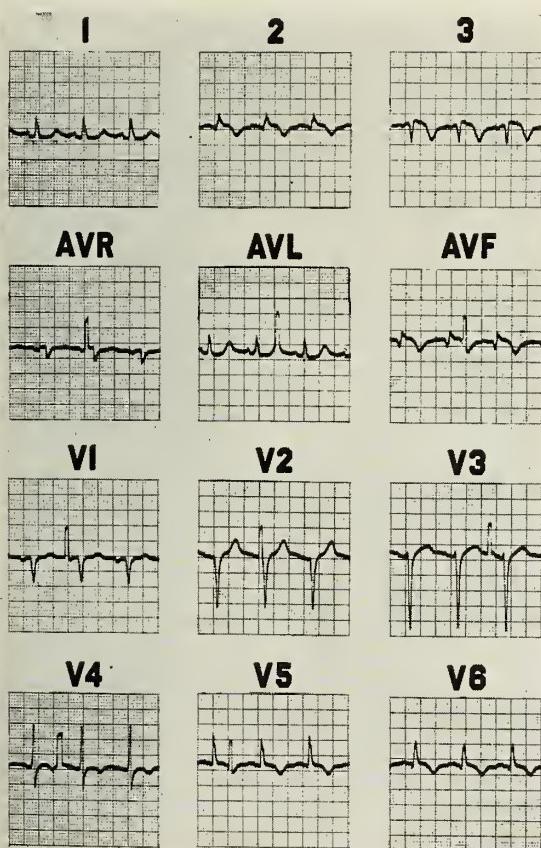


FIGURE 3

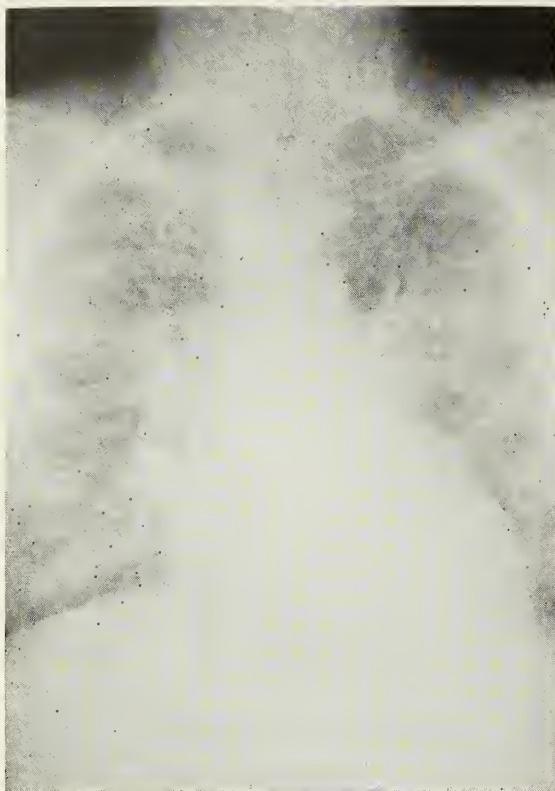


FIGURE 4



FIGURE 5

extensive bilateral pulmonary edema was evident with possibly pneumonia involving the right upper lobe (Fig. 4). On June 9 the white blood count was 10,500 and the sedimentation rate was 25, and on June 12th the white blood count was 12,200, the sedimentation rate was 36, and the S-GOT 40.

During this time it was felt that the patient had congestive heart failure and pneumonia. Oxygen, diuretics and Demerol gave him very little relief from the dyspnea and severe paroxysms of coughing. At times he seemed to obtain temporary comfort by flexing the head and neck over the knees. Since he was known to be sensitive to penicillin, Achromycin® 250 mg., was given every six hours. When the sputum culture revealed a hemolytic streptococcus, sensitive to chloramphenicol (Chloromycetin®), the former drug was discontinued and the latter started. Neither drug seemed to influence the illness.

On June 18 a repeat portable chest x-ray showed slight clearing of the bilateral pulmonary edema (Fig. 5), but on June 25, another chest x-ray showed that the pulmonary edema was persistent and unchanged. Several blood cultures were done and all were negative.

From the time the patient was first seen, his blood pressure gradually declined. At home on May 11th it was 190/110; May 17th 170/90; May 23rd 140/90; May 29th 104/70; June 5th 100/70 and from this date the systolic pressure remained less than 100 for the remainder of the illness, except for a reading of 120/80 on June 20th and 100/60 on June 29.

On June 23, the patient began to feel better. The pain, dyspnea and cough decreased. By July 1, the patient had improved sufficiently to have chest fluoroscopy and further chest x-rays (Fig. 6). This examination showed an enlargement of the transverse cardiac diameter but a ventricular aneurysm could not be demonstrated. There was the suggestion of a slight pericardial effusion. The congestive changes in the lung fields showed partial clearing. The radiologist felt that the lung findings suggested the possibility of a collagen disease.

On July 2 the patient felt particularly well and he was permitted to sit in a chair for thirty minutes. On July 3, at 1 a.m. the nurse checked the patient. He was sleeping quietly. At 2:05 a.m. his breathing suddenly became labored and at 2:10 a.m. he expired. Death came 57 days after the onset of the illness and 53 days after hospital admission.

The *autopsy* was performed approximately 8 hours after death. The pericardial sac was filled with approximately 300 cc of dark grayish-red, partly liquid, partly fresh clotted blood. The heart appeared to be attached rather firmly to the posterior aspect of the pericardial sac. The heart itself measured 8 cm at the base and 11 cm in length. The attachment of the heart to the pericardial sac extended mainly



FIGURE 6

over the diaphragmatic area and was formed by a spongy, moist, fibrous tissue, which measured 1 cm in thickness and appeared suffused with dark grayish-red blood (Fig. 7). The area of these adhesions measured approximately 6 cm in diameter. In the upper edge of this attachment on the posterior wall was an irregularly shaped tear through which the lumen of the left ventricle communicated widely with the pericardial space (Fig. 8). The wall, the trabecules and the papillary muscles of the left ventricle showed the characteristic signs of hypertension. The myocardium forming the lower three-fourths of the posterior wall had changed into a thin layer of moderately firm, grayish-white tissue, which changed imperceptibly into the above described adhesions with the pericardial sac. The wall of the left ventricle measured in this area, 0.3 to 0.5 cm in thickness; in the intact remainder it measured 3 cm in thickness. These changes did not affect the ventricular septum or the marginal area. The valvular system was intact. There was a rather severe atherosclerosis of the coronary arteries, affecting particularly the branches of

the left artery. These changes narrowed the lumen of the different branches in many segments. One completely calcified plaque appeared in the intima of the left circumflex branch approximately 0.5 cm distal to its origin. It was covered with a firmly adherent dry, brownish-gray blood clot which measured 0.5 cm in length and closed the lumen completely.

While no microscopic examination of the heart muscle was done, the gross findings were compatible with a time interval of approximately 6 weeks. The age of the adhesions between the epicardium and pericardial sac was estimated to be two to three weeks.

The aorta showed a moderate degree of atherosclerosis which increased in intensity downward and which was more pronounced than in the average person of this age.

Other findings included a marked pulmonary edema, passive congestion of the liver, spleen and kidneys and normal adrenal glands. Microscopic examination of the kidneys revealed only a very minimal degree of angiolosclerosis. Sections from different areas of both lungs showed a very severe chronic passive congestion.

Discussion

Associated with the increased frequency with which coronary heart disease is diagnosed there is an increased awareness of the complications. One of the serious and sometimes fatal complications following myocardial necrosis in a patient, who survives a coronary occlusion, is an aneurysm of the ventricular wall. Reports in the literature vary widely concerning the frequency with which this complication is encountered. Lisa and Ring¹ reported an incidence of 5 per cent, Wang,² et al 10 per cent, Dick³ 10 per cent in a series of all males, Schlichter⁴ et al 20 per cent, and Applebaum and Nicholson⁵ 38 per cent.

Ventricular aneurysms rarely occur in the right ventricle. In order of frequency the site of involvement in the left ventricle is the apex, anterior wall, posterior wall and interventricular septum.⁴ Anatomically the lesions vary in size, may be single or multiple, and the edges may or may not be sharply demarcated from the more normal myocardium. The sac sometimes contains a thrombus which occasionally be-

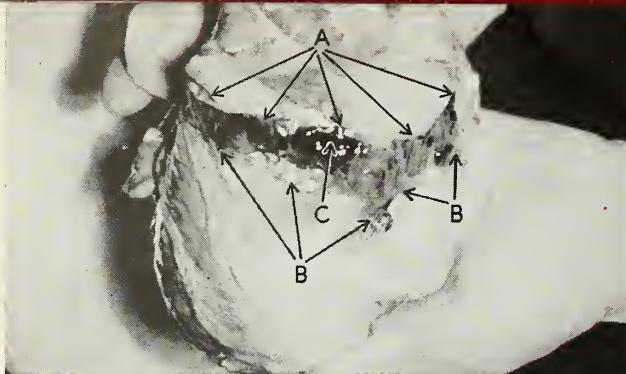


FIGURE 7. Posterior view of the heart. (A) upper edge of adhesions (pericardial edge); (B) lower edge; (C) area of perforation.

comes calcified. An aneurysm may develop as early as a few days or as late as several years after a myocardial infarction. In the patient presented here, if one can assume that the occurrence of the systolic murmur signaled the development of the ventricular aneurysm, then the pathology began eighteen days after the onset of the illness. In patients, who had an acute coronary occlusion, inadequate bed rest (less than three weeks), arterial hypertension and valvular heart disease, all contribute to the cardiac work load and are important factors in the pathogenesis of aneurysm formation.⁴

The normal cardiac physiology is significantly altered by a ventricular aneurysm. This is chiefly manifested by a reduction in cardiac output.⁶⁻⁷ It has also been suggested that by receiving a portion of the output during systole and returning it to the chamber during diastole the aneurysm ultimately may impose a significant volume load on the left ventricle. Cardiac function studies done before and after surgical repair of ventricular aneurysms show a marked improvement in cardiac output after operation.⁸⁻⁹

The ante mortem diagnosis of an aneurysm of the ventricle is more frequently made when the lesion is located on the anterior wall. The clinical recognition of ventricular aneurysms of the posterior wall has not kept pace with those of the anterior wall.³ Vakil¹⁰ reports that in twenty cases the following clinical signs were important: (1) An anomalous location of the cardiac impulse 50 per cent; (2) A lag of the up and down movements of the chest wall with each beat of the heart 65 per cent; (3) A wavy impulse or cardiac shudder 30 per cent; (4) A systolic or diastolic murmur 25 per cent.

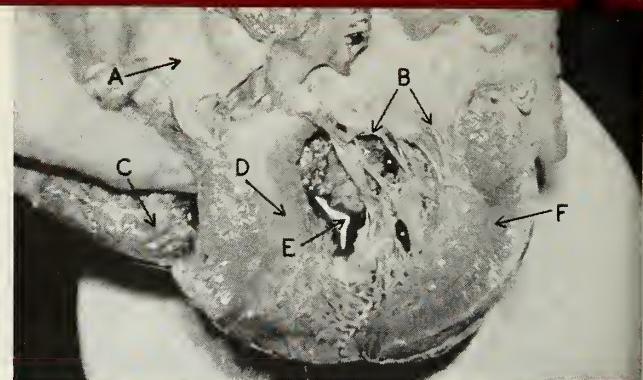


FIGURE 8. (A) aorta; (B) mitral valve; (C) right ventricle; (D) ventricular septum; (E) perforation; (F) lateral wall, left ventricle.

Brams¹¹ states that it cannot be over emphasized that murmurs may arise coincidentally after myocardial infarction from relative mitral insufficiency or causes other than those inherent in the development of an aneurysm. In this instance an anomalous cardiac impulse and a systolic murmur were present.

Cardiac fluoroscopy is of the greatest value in establishing the diagnosis of ventricular aneurysm. Parkinson¹² has described the fluoroscopy signs as follows: (1) enlargement of the left ventricle with deformity of contour; (2) localized protuberance; (3) abnormal or absent pulsations of the aneurysmal zone; (4) calcification of the wall of the sac or its contained clot.

In some instances bulging or systolic protrusion will not occur because of mural thrombus in the aneurysmal zone, pericardial adhesions or calcification. In the case presented here it was felt that the pericardial adhesions plus posterior ventricular wall support from an enlarged liver prevented the appearance of paradoxical pulsations.

In cardiac aneurysms the most valuable electrocardiographic sign is persistence of positive RS-T displacements. In one series these were present in 90 per cent of the cases studied.¹⁷ An upright QRS in aVR was present in 54 per cent. Dick³ states that in aneurysms of the posterior ventricular wall the most common finding is persistent S.T. segment elevation in leads 2, 3 and AVF with deep wide Q waves. These findings were present in this case. Other, less common, cardiographic findings are persistent S.T. depression in the chest leads and intraventricular conduction defects. At times an aneurysm may be present and no characteristic electrocardiographic findings noted.

The prognosis for a patient with an aneurysm of the ventricular wall is poor. Schlichter⁴ found that 73 per cent of these cases died within three years and 88 per cent within five years. In this group of 102 cases the outlook for a patient, who survived the initial attack was twice as unfavorable as one who survived myocardial infarction with no aneurysm. In contrast Master and co-workers¹⁸ found that 50 per cent of all patients having myocardial infarction survived five years and 40 per cent had complete functional recovery. However, long term survival with a ventricular aneurysm is possible but rare. Myocardial infarction, congestive heart failure, a thromboembolic phenomenon or a combination of these factors are the chief causes of death. Almost all authors report that rupture of an aneurysm is rare.⁴⁻¹¹⁻¹⁹

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A number of authors⁸⁻⁹⁻²⁰ have reported successful resection of ventricular aneurysm. Cooley⁹ et al feel that surgical excision and ventricular repair is a feasible and rational surgical treatment for ventricular aneurysm, following myocardial infarction, when the lesion is of sufficient size to cause impairment of cardiac function. These authors operated upon 10 patients, 8 of whom survived. Cardiac function studies done before and after operation showed marked improvement following surgery.

Summary

Aneurysm of the ventricle is a serious complication of myocardial infarction. A case is presented which well demonstrates several of the clinical features and diagnostic problems of such a complication.

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Fluphenazine in the Treatment of the Disturbed, Chronically Ill and Aged Patient

EUGENE J. CHESROW, M.D.; SHERMAN E. KAPLITZ, M.D.; RAOUL SABATINI, PH.D.; HELGA VETRA, M.D.; AND JOHN T. BREME, M.D., *Oak Forest*

Introduction

The effectiveness of the phenothiazines has resulted in the synthesis of many new derivatives. One of the newest of these is fluphenazine,* a halogenated piperazine which by extensive clinical and therapeutic studies has shown to possess a high milligram potency and a long range of safety in the low dosage range.¹⁻⁴ According to Ayd¹ the replacement of one halogen with another has made fluphenazine on a milligram for milligram basis at least twice as potent as trifluoperazine (Stelazine®), three to five times as potent as perphenazine and ten to twenty times as potent as chlorpromazine (Thorazine®), while increasing its speed and duration of action with a minimum of sedative, autonomic and endocrine side effects. The importance of high milligram potency and low therapeutic dose as an explanation of the relative freedom of the piperazine subgroup of phenothiazine from sensitization or unusual reactions is stressed by Benson and Schiele in a review of tranquilizing drugs.⁵ These authors comment: "A relative absence of the sensitivity type of side reaction in the piperazine components, may be partly related to the fact that because of their greater potency the dose is low. This is one reason for the many attempts by the pharmacologists to find more potent components. The smaller the dose,

the less likely that sensitization or unusual reactions occur. The advantages of the piperazine subgroup illustrates this concept." As noted before, fluphenazine has the highest milligram potency of any of the available phenothiazines. Since fluphenazine was found to be effective in the treatment of psychosis, neuropsychosis and particularly in the relief of anxiety states,¹⁻⁴⁻⁶ we decided to evaluate this component in our disturbed, chronically ill and aged patients.

Procedures and Methods of Study

Eighty-one hospital patients were selected for this study, ranging in age from 38 to 76 years, with an average media of 54 years. Forty-nine were male and 32 were female patients whose period of hospitalization ranged from one week to seven years. More prominent basic diagnoses were: generalized arteriosclerosis, cerebral arteriosclerosis, arteriosclerotic heart disease, osteoarthritis, multiple sclerosis and other spinal cord diseases, chronic alcoholism and chronic lung diseases. The group was equally divided as regards being bedridden and ambulatory. The primary psychiatric diseases in these patients were anxiety reaction or tension states in 54, and reactive depression with apathy in 27.

Prior to the beginning of this study, each patient received a thorough physical and neuro-psychiatric evaluation by the staff. Laboratory studies (hematology and chemistry) were completed on each patient, initially and on the conclusion of the study.

The psychological status of the patient was evaluated with the use of two standard psycho-

From the Medical Department of Oak Forest Hospital, Oak Forest, Illinois.

*Fluphenazine was supplied for this study as Permitil® Chronotab Tablets® by White Laboratories, Inc., Kenilworth, New Jersey.

logical tests. They were: (1) The Manson Clinical Evaluation Test, devised by Morse P. Manson and (2) The S.R.A. Nonverbal (J. E. King). The first is an objective personality test to measure emotional traits as well as present and potential diseases by investigating seven personality traits: anxiety, depressive fluctuations, emotional sensitivity, resentfulness, incompleteness, aloneness and interpersonal reactions. These are frequently scored high by psychoneurotic patients and scored relatively low by balanced individuals. The S.R.A. Nonverbal Test measures mental speed and accuracy in resolving problems of everyday life.

Methods of Study

Our method of study used was the comparison of fluphenazine and a placebo in a double blind study. These patients were observed during a six month period. Sixty-six patients were given the actual drug, 15 received placebo.

Fluphenazine as such was particularly identified by us as Permitil Chronotabs,® a long-acting preparation, supplied to us in two milligram tablets. Dosage was two tablets b.i.d.

Of the 54 patients suffering with anxiety reactions, the symptoms of restlessness, tension, nervousness, agitation and irritability were the most prominent complaints. Of the 27 with reactive depression, marked apathy, passive behavior, crying spells, depressive periods and occasionally a state of agitation were most common.

Daily clinical observations were carried out by the ward physicians with periodic neuro-psychiatric evaluations. Psychological tests were performed at the onset of the study and were repeated just prior to the conclusion of the study.

Results

Statistical results of the clinical response by diagnostic categories are presented in Table 1. *Group 1*—In forty-four patients with a diagnosis of anxiety reaction the clinical response was considered good in 33, fair in five, and negative in six. *Group 2*—In 22 patients with reactive depression, the clinical response noted was good in seven, fair in four and negative in 11. *Group 3*—In 15 patients on placebo medi-

TABLES 1 and 2.

Response to Fluphenazine	
Group 1 (Anxiety Reaction)	
	Results No. of Patients
Good	33 (75%)
Fair	5 (11.36%)
No Response	6 (13.64%)
TOTAL	44

Group 2 (Reactive Depression)	
Good	7 (31.82%)
Fair	4 (18.18%)
No Response	11 (50%)
TOTAL	22

Placebo Group (Anxiety Reaction)	
Fair	2 (20%)
No Response	8 (80%)
TOTAL	10

Placebo Group (Reactive Depression)	
No Response	5 (100%)

cation, a fair result was noted in two and a negative response in 13 patients.

Of the total of 66 patients treated with fluphenazine, good results were noted in 40 (60.6%); fair results in nine (13.64%); and a negative response was noted in 17 (25.76%). Of an additional 15 patients evaluated following the administration of placebo, a fair result was noted in two (13.33%) and a negative response in 13 (86.67%) (Tables 1 and 2).

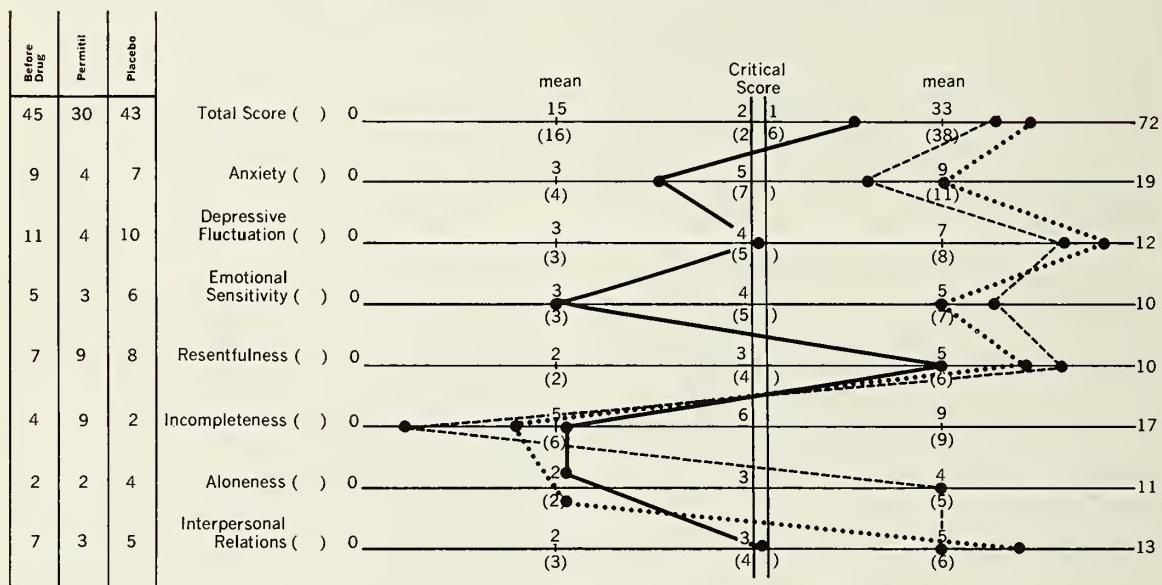
Tables 3 and 4 present details of the clinical psychological studies in the two diagnostic categories. Examination of these tables indicate that fluphenazine effectively relieved symptoms of patients in whom an anxiety reaction was present. Most of the seven personality traits evaluated by the Manson Psychograph showed improvement following the treatment with this drug. In particular, there was a definite lessening of the degree of the anxiety, a diminution in the depressive behavior and a more realistic approach to interpersonal relations. However, in using the identical psychological technique on patients suffering with depression and apathy, results were not as favorable as in patients suffering with an anxiety reaction.

Laboratory Studies

Twenty-five (25) patients randomly selected

No. of Patients —27
 a) Experimental —22
 b) Placebo — 5

TABLE III
 DIAGNOSIS: ANXIETY REACTION
 BEFORE AND AFTER DRUG (Actual Drug — Placebo Drug)
THE MANSON EVALUATION PSYCHOGRAPH PROFILE



*The number in parenthesis indicates that of females.

PSYCH. #101

●.....● Before Drug
 ●—● After Experimental Drug
 ●---● After Placebo Drug

received complete blood counts, urinalysis and liver function studies at the onset of the study and following the conclusion of this investigation. No abnormal findings were reported in any of these tests.

Side Effects

One patient reported slight nervousness, six complained of either mild nausea or weakness and one of dizziness. The significance of these side effects was extremely difficult to evaluate

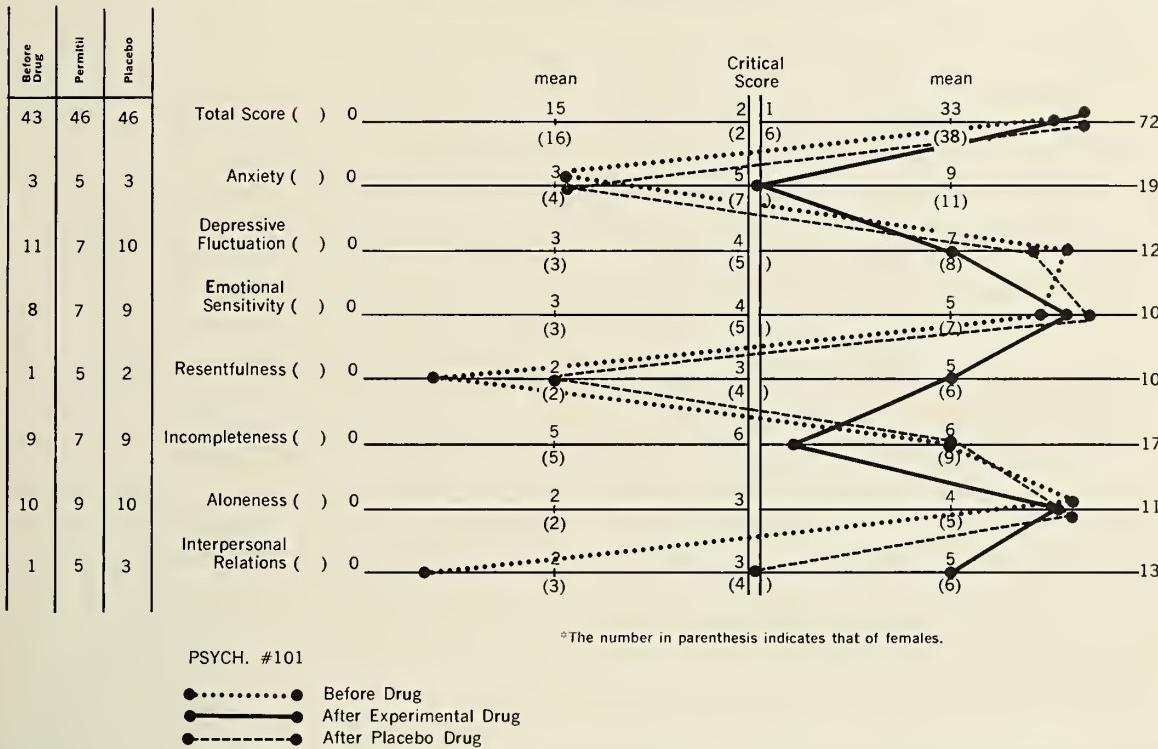
due to the confusional state which accompanied the illness.

Conclusion

Fluphenazine was found to be a valuable adjunct in the treatment of symptoms of anxiety in the disturbed, chronically ill and aged patients. It was found less effective in relieving symptoms of depression and apathy associated with the same type of patients.

No. of Patients —27
 a) Experimental —22
 b) Placebo — 5

TABLE IV
 DIAGNOSIS: REACTIVE DEPRESSION WITH APATHY AND PASSIVE BEHAVIOR
 BEFORE AND AFTER DRUG (Actual Drug — Placebo Drug)
THE MANSON EVALUATION PSYCHOGRAPH PROFILE



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Low Fat Diets, Serum Lipids and Atherosclerosis

RICHARD J. JONES, M.D., Chicago

Reduction of fat consumption "with reasonable substitution of polyunsaturated fats" has been "recommended as a possible means of preventing atherosclerosis and decreasing the risk of heart attacks and strokes" by a committee of the American Heart Association.¹ The possible effectiveness of this measure rests, of course, upon the well known effect of dietary fat restriction upon the serum cholesterol level. It also assumes a cause and effect relationship, which has not yet been established as a basis for the observed correlation between elevated serum cholesterol levels and the future development of coronary artery disease symptoms. Further assumptions are that the serum cholesterol is an adequate measure of the atherogenic potential of the serum lipids, that its reduction will allay or even reverse atheroma formation, and that other effects of a low fat diet are of little consequence. There are several observations which suggest substantial reservations in the full acceptance of these assumptions.

In a two week experiment, Beveridge² found that a formula diet rich in butter induced a higher serum cholesterol level, while a diet equally rich in corn oil induced a lower level than was seen in healthy subjects on a fat free diet. This emphasizes the fact that a distinction must be made between vegetable oils and animal fats, when we consider dietary fat alterations. In order to better understand this difference we must examine the total serum lipid pattern. Although cholesterol itself has received the most attention, probably because it is the lipid most easily measured, it occurs in its native state in the plasma in conjunction with phospholipids, protein and triglycerides as macromolecular lipoproteins.

On the basis of physical, chemical and biolog-

ical characteristics five of these lipoproteins can be distinguished. In order of decreasing density these include: two classes of heavy density lipoproteins (α_1), a medium density lipoprotein (β), a low density lipoprotein (α_2) and the lightest and largest particle, the chylomicron. There is as yet no final proof that any of these is *the* atherogenic particle but evidence continues to mount in favor of the importance of the low density α_2 lipoprotein. Gofman found this same S_f 20-400 lipoprotein to be atherogenic; Kunkel and Trautman also felt that this α_2 lipoprotein was present in greater concentration in the blood of myocardial infarction survivors; Hanig was able to recover lipoproteins of this density from aortic plaque; and recent chemical analyses of plaque lipid also suggest that it has a closer similarity to α_2 lipoprotein than to any other plasma lipid.³ This thesis is also supported by the recent observations of Albrink⁴ that the total triglyceride of the serum discriminates between normals and coronary patients better than the serum cholesterol level, for these lipoproteins correlate better with triglyceride content than with the cholesterol level of the serum.

It is important to examine the medium and low density lipoproteins when considering the effects of dietary fat, for they respond differently to dietary manipulations. Probably the lightest class, the chylomicrons, should be considered separately from the low density (α_2) lipoproteins, for recent studies have shown that the post-prandial increase in plasma chylomicrons normally gives way to increasing amounts of α_2 lipoprotein as the former are converted, presumably in the liver, to the latter. In familial essential hyperlipemia, the normal post-prandial turbidity is exaggerated, but this can be minimized by a low fat diet. The sluggish clearing of the post-prandial chylomicronemia in this disorder may still be adequate

While the Nutrition Committee of the Chicago Heart Association is sponsoring this article, the opinions expressed are those of the author and do not necessarily represent the official view of that committee.

if the fat load presented to the intestine is sufficiently reduced. In all other patients, when the serum lipoproteins are measured in the fasting state, there are few chylomicrons and the proportions of alpha₂ and lipoprotein are closely related to dietary fat.

A reduction of dietary fat, leaving other food-stuffs constant necessitates caloric reduction. It has been well demonstrated that a negative caloric balance, even with a high proportion of fat calories, will lead to a reduction of all serum lipids including the medium and low density lipoproteins. If dietary fat is reduced without altering caloric intake, then protein or carbohydrate calories must be correspondingly increased. Exchange of protein for carbohydrate in the normal diet has been shown to have little effect upon the serum lipids in the range from 45 to 180 grams per day.³ This would suggest that protein has no effect, or at least no different effect than carbohydrate, upon the serum lipids. The carbohydrate effect is an interesting one, the difference between various types of carbohydrate being still not fully understood.

Ahrens et al.⁵ noted that in changing a subject's diet from high to low levels of corn oil, the serum cholesterol did not change much but the triglycerides rose dramatically. Further elucidation came from Gofman⁶ who employed three different diets in 5 subjects: normal, low animal fat; high carbohydrate and low animal fat; high vegetable oil. The medium density beta lipoproteins fell with reduction in dietary animal fat, whether the difference in calories were made up by vegetable oil or carbohydrate. In the later instance, however, the alpha₂ lipoproteins rose. Thus the beta lipoprotein varies with dietary animal fat and alpha₂ with carbohydrate; neither is effected by vegetable oils. Antonis and Bersohn⁷ also confirmed that a shift to a high carbohydrate diet provoked a rise in serum triglycerides, but observed that as the diet was pursued for several weeks the unusual triglyceride elevation returned to "normal." It is not certain how much practical importance should be attached to this observation inasmuch as the coronary-prone Europeans took much longer to adjust to such a diet than the Bantus. These observations do perhaps explain why Beveridge's fat free diet which was very

high in carbohydrate, provided a higher serum cholesterol than the high corn oil: low carbohydrate diet, for the alpha₂ lipoprotein includes about 13 per cent of the whole serum cholesterol.

It would seem, then, that, if our goal is to achieve low levels of both the beta and alpha₂ serum lipoproteins, the best diet is one low in animal fat and carbohydrate: the remaining calories deriving from vegetable oil or perhaps protein. How desirable this objective may be is certainly not yet established, and there is some evidence that the type of circulating triglyceride may be of importance in determining tissue deposition. Gresham and Howard⁸ have demonstrated that rats kept on a peanut oil diet, as contrasted with those on a butter diet, had a lower level of serum cholesterol but more severe atheromatous lesions. The vegetable oil is more easily absorbed, lingers a shorter time in the blood stream yet, perhaps for the same reasons, better penetrates the endothelium.

All of these observations suggest that the serum cholesterol level may not be the best indication of atherogenic potential. Its reduction by extreme lowering of dietary animal fat in favor of certain carbohydrates or vegetable oils may even, under appropriate circumstances, provide a serum lipid pattern capable of accelerating atherosclerosis. Certainly more definite information needs to be available before any more than moderate caloric and dietary fat restriction can be recommended for the patient with coronary artery disease.

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EDITORIALS

"Milking" for Insect Venom

Pure venom can be obtained from bees, wasps, and hornets by electrical stimulation. The insect is anesthetized with carbon dioxide and placed in a half cylinder of fine brass mesh and bound into place with a ribbon of aluminum foil. The insect is given a brief high voltage shock as it begins to revive. The venom is collected in an empty well, dried, and stored at 32°F. It remains active for a month.

According to an article in *Science*, "Two or three insects can be milked each minute with no apparent effect on the insect except pronounced hunger and thirst." This inexpensive apparatus may effect the lives of many persons who are sensitive to the sting of bees, wasps, and hornets. More and more reports on severe allergic reactions to insect sting are appearing in the medical literature. This means an increased demand for desensitizing vaccines which is perhaps the best approach to the problem.

Insect repellents are of little value against bees, wasps, and hornets. They sting as a defensive act, especially when disturbed or frightened. The allergic individual should avoid areas where these insects are likely to be. In addition they should carry a kit containing a tweezer to remove the bee sting; an isuprel tablet to dissolve in the mouth; an epinephrine inhaler; a tourniquet to apply on the arm or leg above the sting; and an antiseptic towellette to cleanse the area.

O'Connor, Rod; Rosenbrook, Wm. Jr.; Erickson, Robert: Hymenoptera: Pure Venom From Bees, Wasps, and Hornets. *Science* 139:420 (Feb. 1), 1963.

T. R. Van Dellen, M.D.

"Tie Me Medical Costs Down, Sport"

Be not the first to try the new nor the last to try the old applies to health schemes as well as drugs and procedures. The rising cost of socialistic medicine is beginning to hurt and undoubtedly is creating problems for politicians in many countries where the plan was adopted. The following is an excerpt of an editorial that appeared in the *World Medical Journal* of last July: "The cost seems to rise whatever the

prevailing system of social security; indeed in countries where government has intervened to a large extent in the provision of medical care, the costs have not proved much less than in those countries where much of the work is in the hands of private enterprise." The editorial continues, "The main reason . . . is that the public in all but the most primitive lands expects more and more that everyone will receive the highest quality care."

This is true but the "highest quality care" need not be the most expensive. We might love to have a Cadillac or Lincoln but a Ford or Chevy will take us where we want to go. The trouble with government medicine is that it is too easy to spend someone else's money. Furthermore, large sums must be spent to discourage graft and corruption.

The Australian National Health Scheme is spending this amount. In 1946 it cost 1,100,000 pounds, and in 1962 the figure jumped to 85,100,000 pounds. The year before they spent 75,000,000 and in 1954 a total of 31,300,000. The cost since 1954 has risen in the respective years by an amount in millions of pounds of 6, 4, 3, 5, 11, 8, 7, and 10. The reasons¹ given are the steady growth in population, increased claims on medical and hospital benefits, general increase in cost of living which is neglected in hospital fees, and the complex and more expensive forms of medical care.

But the main change was in pharmaceutical benefits. Almost three quarters of the 10,000,000 pound increase in 1962 was spent on drugs. Almost 35,000,000 pounds was spent. The reason was the high selling cost of certain potent modern remedies that displaced older and cheaper medicaments plus the expansion of the range of pharmaceutical benefits.

The rising cost of medical care is obviously as much a problem to those countries where socialistic medicine is practiced as in the United States. Rising costs are noted in all fields of endeavor. Changing the system is not the answer to the problem unless our political planners are more interested in cutting themselves or others into the dollar that the layman spends on medical care.

1. The Rising Cost of Health Schemes. *The Medical Journal of Australia*, page 881, Dec. 1, 1962.

T. R. Van Dellen, M.D.

The Northwestern Bio-Medical Engineering Center and Training Program

JOHN A. JACOBS, PH.D., Chicago

Introduction

The programs in Bio-Medical Engineering described in this presentation are a direct outgrowth of a community of interests existing between the Technological Institute and the Medical School. This interest originated with the study of problems in homeostatic physiology that were undertaken some 10 years ago by the Departments of Electrical Engineering and Physiology and has since grown to include other departments within the Technological Institute and the Medical School. At the present time, these studies encompass basic physiological control systems, instruments for the measurement of a variety of physiological variables and the application of concepts from the life sciences to pure technological problems. Inherent in the program is the theme that training and research is of necessity, a cooperative venture between two disciplines, requiring extremely close and equal collaboration on the part of the faculty members involved.

Northwestern Bio-Medical Training Program

The greatest need in the area of Bio-Medical Engineering is that of trained individuals. Some estimates place the number at three hundred a year who could be placed annually over the next ten years in various departments

of the universities medical schools and government. The rapid increase in modern instrumentation, in computer theory and in the application of engineering principles in biology will greatly increase the man-power demand from industrial organizations in the foreseeable future.

At the present time, there exists in the United States approximately seven groups within various universities devoted to the training of individuals in this interdisciplinary area of Bio-Medical Engineering. Due to early planning and funding the only complete center is currently established at Northwestern University. Other training programs underway or being started are at Johns Hopkins University, the University of Rochester, the University of Pennsylvania, the University of Iowa (Ames), Baylor University (Houston), the University of Michigan, and the Case Institute of Technology (Cleveland). Estimates are that a total of 50 students are involved at the present time.

Work in the area of Bio-Medical Engineering must be conducted in a rather *unique environment due to the nature of the material studied*. In order to effectively bring to bear the resources needed for work in this interdisciplinary field, a facility must be created which is *capable of handling living organisms ranging from the individual cell to man himself*. This requires the intimate association of an engineering school with a large medical school. Northwestern University is uniquely qualified to engage in the development of the bio-medical sciences as a result of its active and well recognized medical school and departments of engineering within the Technological Institute.

At the present time, there are enrolled approximately twenty students at the M.S. and Ph.D. degree levels in the Bio-Medical Engi-

Professor of Engineering and Co-chairman of
the Bio-Medical Engineering Department, Northwestern University.

From the Symposium "Opportunities in Bio-Medical Engineering for Chicago Area Industries" held March 29-30, 1963 in Chicago and sponsored by Northwestern University and the State of Illinois.

neering Program at Northwestern. The majority of these students are electrical engineers working for the advanced degrees, however, in one of the projects a civil engineer (Ph.D. candidate), specializing in hydraulic theory, is active.

Members of the various departments at the Medical School are currently housed on the Evanston Campus and participate in both graduate student guidance and teaching. Students from the various departments of engineering within the Technological Institute carry out their research programs in the laboratories of the Medical School. Following the formal presentation this afternoon, tours have been arranged of six typical projects in which faculty and engineering students are engaged in on the Chicago campus.

A formalized curriculum in Bio-Medical Engineering has been evolved where appropriate. Some indication of the existing courses and the projected expansion of this curriculum may be gained from figure one. Inasmuch as graduate training consists of both formalized course work and research experience, a large factor in the graduate students education is that of bio-medical research experience. It is the purpose of the Bio-Medical Engineering Center to create a resource of faculty guidance as well as specialized facilities to supplement those currently available in the university for the purpose of rounding out the bio-medical students research experience. In the discussion that follows the Center contribution will be detailed regarding the areas currently under investigation and proposed at Northwestern.

The Northwestern Bio-Medical Engineering Center

The Northwestern Bio-Medical Engineering Center functions as a resource to provide support for faculty, centralized facilities and services for those individuals engaged in bio-medical engineering research and training. Guidance for the operation of the Center is provided by a nine man committee comprised of members from the Department of Medicine, Surgery, Physiology, Pharmacology, Biology, Civil Engineering, Mechanical Engineering and Electrical Engineering of the University.

Research underway quite logically may be classified into four areas of endeavor as outlined in Figure 2.

It should be noted at this point that since the funding is primarily through governmental agencies the selection of research areas is entirely a faculty prerogative. This freedom of selection of research areas is extremely attractive to the faculty members engaged in research and graduate student training. The only limitation on the faculty member appointed to the staff of the Bio-Medical Engineering Center with regard to his research is that it must be judged by the advisory committee of the Center to be both interdisciplinary and of a bio-medical engineering nature. In practice since the term bio-medical engineering encompasses such a broad spectrum of the life and physical sciences, this does not constitute a serious limitation to the faculty member desiring to enter the field.

A fifth and important area of the Center is that of the bio-medical instrumentation laboratory. In an on-going program having broad and long range goals, it is imperative that the portion of the program investigated by each graduate student as part of his study become a part of the whole program. To this end then means have been provided in the Bio-Medical Center to *take the conceptual and breadboard models evolved by the students in obtaining their advanced degrees and reduce these to a prototype model which may be used by succeeding students and the faculty investigators in the continuing research project.*

This then is the role of the Bio-Medical Instrumentation Laboratory in that it takes the equipment of concept evolved by the various graduate students in completing their thesis or dissertation and produces from that a well working prototype, the operation of which is not dependent upon the presence of the student who originally designed it. This one facet has in my opinion been a strong point in our success to date. *Many programs in the universities, as you from industry are well aware, normally bog down in that the equipment evolved during the investigation only works and is of use to the remainder of the team while the student that designed it is on campus.* Our experience to date with the Bio-Medical

FIGURE 1.

Specialized Bio-Medical Curricula Currently Taught and Proposed

Title	Content	Level	No. of Quarters
Problems and Concepts in Biology	Evolution, development genetics, ecology	C	2
Levels of Biological Organization	Cells, organs, populations	C	1
Engineering Physiology	Circulation, respiration digestion, metabolism renal functions, reproduction, homeostasis	C	2
Organic Chemistry	411-B10	B	2-3
Biochemistry	411-D52, 53	D	2-3
Introd. to Bio-Medical Engineering	730-C70	C	1
Measurement Systems	Amplifiers, stimulators transducers	C	1
Data Processing	Recording, statistical analysis	C	1
Cellular Physiology	Sensory organs, proprioceptors	D	1 or 2
Receptor Mechanisms	Nerve conduction, synaptic process, CNS	D	1
Neural Transmission	Muscle, gland	D	1
Effector Organs	Analysis of control, systems having distinctive biological properties	D	1
Theory of Biological Control Processes	Mathematical theory of signal detection in presence of noise	D	1
Sensory Detection Theory	(a) Physiological optics (b) Physiological acoustics	C-D	1
Research Seminars			

Instrumentation Laboratory in the role outlined above has been most satisfactory.

Conclusion

It is felt at this time that the Northwestern Bio-Medical Engineering Research Center together with the Bio-Medical Training Program will provide for Chicago industry a broad basis upon which to build an effective program in the general area of bio-medical engineering.

As the Center grows, opportunities for Chicago industry will be available in:

1. The manufacture of the instruments evolved through the research programs.
2. The availability of individuals graduated by the Program.
3. Contact with the faculty members involved in the Research Program.
4. Training of the company's personnel.

The Center is in operation. It is up to you as representatives of Illinois industry to take advantage of the opportunities available.

FIGURE 2.

- I. Research Program Relating to Patient Diagnosis and Care
 - a) Investigation of Mass Screening Techniques based upon the Phonocardiogram.
 - b) Patient Handling during Surgery and Post-operative Recovery.
 - c) Studies on the Cardio-Vascular System.
 - d) Athletic Medicine.
 - e) Acoustical Spectroscopy.
- II. The Physiological Control Systems Laboratory (PCSL)
 - a) The Pupillary, Accommodation and Fixation Reflexes in Man
 - b) Signal Transmission through the Retina.
 - c) Limulus Photoreceptor.
 - d) Mathematical Muscle Models.
- III. The Use of Computer Techniques
- IV. Application of Physical Electronics to the Problem of evolving new Transducers
 - a) Investigation of Ultrasonic Visualization System.
 - b) Transducer for Area Display of Biological Potentials.
 - c) I.R. Transducer working at Liquid Helium Temperature.

MOVING SOON?



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Brain Research Foundation, Inc.

30 SOUTH LA SALLE STREET
CHICAGO 3, ILLINOIS

The Brain Research Foundation welcomes this opportunity to inform the members of the Illinois State Medical Society of its purposes and program.

The BRF is an Illinois not-for-profit corporation created in 1953. *Its purposes are:*

1. *To promote research* on the study of the human brain, including the prevention and cure of brain disorders.
2. *To further professional and scientific education* to the end that there may be an increased number of persons qualified to study the human brain and the ills that affect it.
3. *To foster public education on the human brain* to the end that there will be a better understanding of brain related illnesses, ways to protect the brain and to capitalize on its potential.
4. *To foster clinical and related professional care* for persons afflicted with brain related illnesses to the end that the quality and amount of such care will be progressively increased.
5. *To establish one or more brain research institutes.*

Scientific Program

While working on the planning, organization and financing of a Brain Research Institute for Chicago, the foundation has been carrying out a program designed to advance each of the foregoing purposes:

Scientific Conferences

The BRF has held four scientific conferences: the first one was on *Blood Tests in Mental Illness*; the second on *Molecules and Mental Health*; the third was on *ACTH Treatment of Hypsarrhythmia and Infantile Spasm*; and the fourth on *Community and National Planning for Brain Research*. A fifth scientific conference is being planned for early 1964.

Research Support

Direct research activity has been supported by the BRF to the extent of over \$177,000.00. These "starter" and "encouragement" grants have facilitated . . . development of new types of drugs aimed to be useful in the treatment of schizophrenia, anxiety and depression . . . investigations into the bio-chemical disturbances in mental retardation and certain other neurological disorders . . . study on electroencephalographic abnormalities in epilepsy and various forms of mental retardation . . . work on classification and treatment of epilepsy . . . and study of human brain cells in tissue culture investigating the mechanism of growth and regeneration of normal and abnormal brain specimens.

New Project

The BRF has also entered into a cooperative
(Continued on next page)

*This Service Page is prepared and sponsored by the
Brain Research Foundation, Mr. Lawrence Linck, Vice President.*

Brain Research Foundation (continued)

project with the Children's Memorial Hospital in Chicago, underwriting the initiation of a new department of Pediatric Neurology under the scientific direction of Dr. J. Gordon Millichap who came from the Mayo Clinic began work on the project July 1, 1963.

Public Education

A fairly comprehensive program of public education has made use of leaflets, pamphlets, lectures and exhibits. Special events have served to further the education work and to foster voluntary financial support. The foundation's work also has benefitted from the support of the Illinois Federation of Women's Clubs.

Financing

The work of the BRF is supported by voluntary contribution, a large portion of which to date has been made by officers, trustees and directors. An annual Halloween "Trick or Treat" candy sale has also been productive and substantial gifts have been made by a number of foundations and corporations. A basic membership of interested individuals provides a continuing support.

Theatre Benefits

In 1961 the BRF had a most successful benefit performance of the *Sound of Music*. A benefit performance of *How to Succeed in Business Without Really Trying* is scheduled for *Tuesday, December 17, 1963*.

For those who wish to enjoy a *smash hit* and at the same time help a basic research cause, tickets are available at or from:

The Brain Research Foundation

39 South LaSalle Street

Chicago 3, Illinois

Telephone: CEntral 6-9261

Physicians are particularly welcome.

For a good night's sleep without barbiturate side effects: **Doriden** (glutethimide)

Patients sleep soundly up to 8 hours and awake refreshed with Doriden (glutethimide). In addition, they benefit from its specific advantages over barbiturates:

- rarely causes pre-excitation; onset of action is smooth
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AVERAGE DOSE: 0.5 Gm. at bedtime. Total daily dosage over 1 Gm. not recommended for continuing therapy.

CAUTION: Careful supervision of dosage is advised, especially for patients with a known propensity for taking excessive quantities of drugs. Excessive and prolonged use of glutethimide in susceptible persons, for example, alcoholics, former addicts, and other severe psychoneurotics, has sometimes resulted in dependence and withdrawal reactions. In those cases, dosage should be reduced gradually to lessen the likelihood of withdrawal reactions such as nausea, abdominal discomfort, tremors, or convulsions.

SIDE EFFECTS: Occasional reversible skin rash and nausea.

SUPPLIED: Tablets, 0.5 Gm., 0.25 Gm., and 0.125 Gm. Capsules, 0.5 Gm.

2/3115MK

C I B A
SUMMIT, N.J.

Doriden® (glutethimide CIBA)

Program Matches Intern to Hospital of His Choice

More than 6,900 young physicians began their internships recently under the auspices of the 12th National Intern Matching Program. This service, located in Evanston, Illinois, acts as a clearing house to help the graduating medical student obtain an internship at the hospital of his choice, and to help the hospital obtain the graduate of its choice.

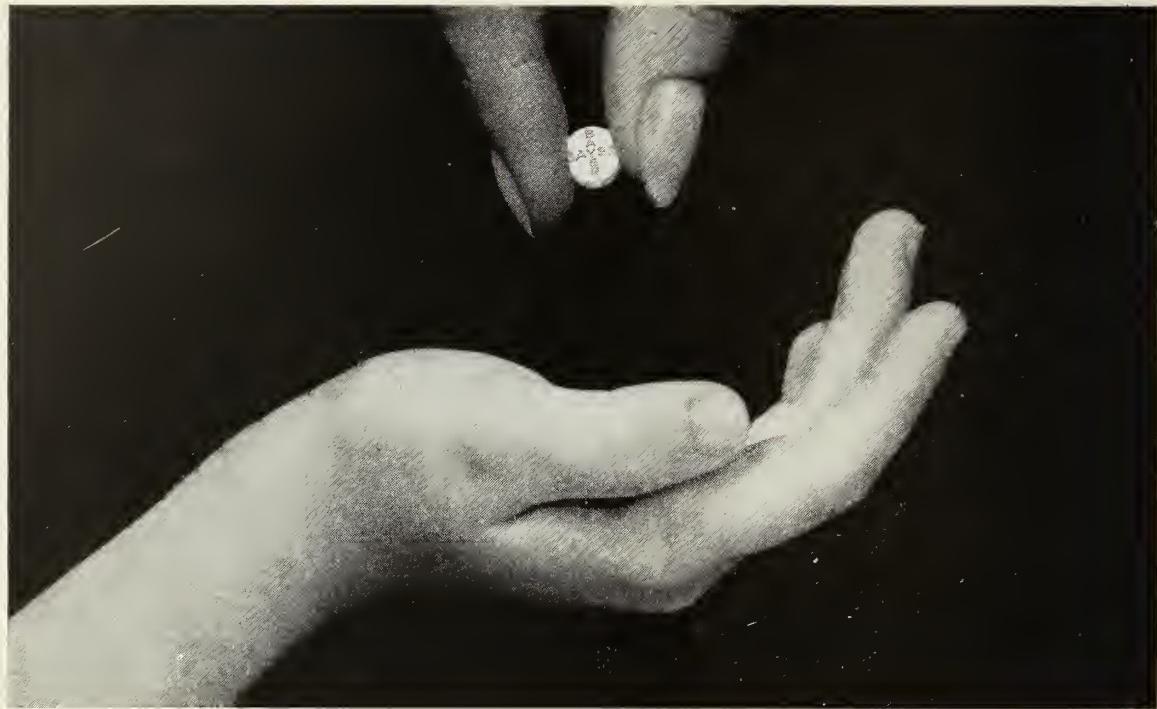
Eighty thousand participants have taken advantage of the Program since its inception in 1951. In the program year just completed 6,954 of the 7,180 participants were matched with hospital openings. There were 12,456 available positions.

In order to become a participant in the Program a medical student registers by signing an agreement form. He then applies for internship at any of the approved hospitals participating in the program. Both student and hospital are free to secure information about each other. After the student has given careful consideration to all of the hospitals in which he is interested, he submits a confidential list ranking his preference among the internships for which he has applied. The hospital submits a similar confidential ranking list of the students who have applied to it. The Matching Program then matches each student to the hospital highest on his list which is available to him and notifies him of the result.

During the past year, 72 per cent of the students received their first choice, 14 per cent their second, 6 per cent their third and 8 per cent received a lower choice.

Of 745 hospitals participating, 102 received 100 per cent of their quota; 211 received from 99-50 per cent; 101 received 49-25 per cent; 102 received 24-1 per cent while 229 received none. Of these hospitals 56 per cent received their first choice.

The matching plan is supported and operated by the American Hospital Association, American Protestant Hospital Association, Association of American Medical Colleges, Catholic Hospital Association, the Council on Medical Education and Hospitals of the AMA and the Student American Medical Association.



HOW TO BE SURE your young patients get the aspirin dosage you want them to have

The answer is Orange Flavored Bayer Aspirin for Children. The dosage is $1\frac{1}{4}$ grains per tablet. Mothers place such confidence in the Bayer name. And the new orange flavor is so fresh and smooth that children take it readily. (The grip-tight cap on the bottle helps keep them from taking it on their own.)

For professional samples, just write The Bayer Company, Dept. 110, 1450 Broadway, New York 18, New York.



PULSE

of the Illinois State Medical Society

and *Illinois Auxiliary News*
Illinois Medical Journal



September, 1963 A Service of the Public Relations Division

Begin In Illinois

Community Health Week Now Nation-Wide

In 1962, your Illinois State Medical Society inaugurated a pilot program called Community Health Week. Its purpose: to focus attention on the excellent medical and health facilities available in our communities.

The American Medical Association was so impressed with the program that it adopted it as an annual event and set aside Oct. 20-26, 1963, as the first nationwide Community Health Week observance.

At that time, the entire nation will join Illinois in a salute to the progress of medical science and the high quality of health resources and facilities available in our communities.

Though the manner of observance of Community Health Week will be left to the discretion of each county medical society, health fairs, science fairs, medical careers days and immunization campaigns have been suggested as focal events around which the community observances may be organized.

As an aid to county societies, the AMA has distributed kits outlining proposed projects, press releases, speeches, etc., to be used as a basis for the promotion in your area.

As the "Founding Father" of the event, your state medical society also will lend a helping hand by supplying these aids:

- NEWSPAPER AD MATS—Each county society will receive mats of newspaper advertisements (both full page and five column) calling attention to the purpose and objectives of Community Health Week. The county society may sponsor the "ad" itself, or solicit its sponsorship by a third

**COMMUNITY
HEALTH
WEEK**

October 20-26

**Help Yourself
To Better Health**

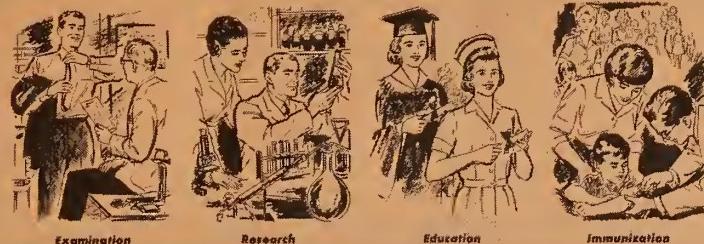


During this age of scientific miracles, more advances in medical and health care have been developed than in any other period known to man. Yet for all these advances it is you—as a member of your community—who holds the key to good health.

The purpose of Community Health Week is to focus public attention on the medical and health resources available in your community. Learn how you can help yourself to better health by familiarizing yourself with the excellent health services and

facilities which have been provided through independent community action. Take this opportunity to acquaint yourself with the doctors, nurses, technicians and volunteer workers who are dedicated to preserving the rising health standards that have become an integral part of our American way of life.

And remember, only through regular health check-ups, a program of family immunization, advanced education and continued research can we remain a free and healthy America. This is the real challenge of Community Health Week.



HERE'S A MINIATURE VERSION of the newspaper advertising mats (both full page and five-column) ISMS is distributing to county medical societies for use during Community Health Week, Oct. 20-26. Space is provided at the bottom for the name of the sponsoring county society. Societies are urged to place the mats in as many newspapers as possible.

party, such as a local industry, or business establishment.

- TELEVISION FILM—All 19 television stations in Illinois will be supplied with one-minute public service film spots promoting Community Health Week and urg-

ing public participation.

- RADIO SHOW—ISMS will tape a discussion on Community Health Week for its "Medical Interview" radio series currently aired on some 27 stations throughout the state.

The President's Prospectus 1963-1964

I am extremely delighted and grateful for the opportunity to extend warmest greetings to every doctor's wife throughout our great State of Illinois, and am looking forward to serving and working with you in the year ahead.

"Serve and Communicate" is the theme selected by the National Auxiliary President, Mrs. C. Rodney Stoltz, for the year 1963-1964—and "The Art of Giving" is the

selection of your State president as the Illinois Auxiliary theme.

One of the most important arts embodied in our daily living is the art of giving. We, as responsible individuals, should take time out from our personal lives to share this wonderful gift with others. Let us remember that:

"We give of ourselves when we give gifts of the heart: Love, kindness, joy, understanding,



COME TO THE FAIR—Members of the Auxiliary prepare the special envelopes containing health information for distribution to visitors to the Illinois State Fair, compliments of the Sangamon County Medical Society. (Left to right) Mrs. Holger Hoegh, Mrs. Matthew Uznanski, Auxiliary president, Mrs. Malcolm J. Tindal and Mrs. Oliver Veneklaesn prepare the packets at the Society offices.

Your AMA Delegate Reports

It was indeed a privilege and a pleasure to serve as your delegate. It was with deep appreciation that I listened to what each speaker had to say.

In our little county in Illinois we work hard at Auxiliary work and sometimes we wonder if our efforts are for naught; but when we listen to the reports of each of the 50 states and realize the magnificence each has attained, we view things from a different vantage point.

Each speaker had a definite message to contribute and a colorful thread to weave into the fabric of the whole.

One's heart was touched as Dr. W. B. Walsh, president of People to People Foundation, Inc., spoke to us of Project Hope—how this ship of mercy is bringing hope, healing, knowledge and self-help to people in dire medical need.

Dr. Annis and Mrs. Stoltz, our respective presidents, have brought us new ideals, new perspectives, new challenges, and new inspirations, Medicare shall not have a chance. We shall take up our beds and walk (complacency be gone) and we shall "sin by silence" no more.

**Mrs. W. W. Wallenstein,
Geneseo**

sympathy, tolerance, forgiveness . . .

"We give of ourselves when we give gifts of the mind: ideas, dreams, purposes, ideals, principles, plans, inventions, projects, poetry . . .

"We give of ourselves when we give gifts of the spirit: prayer, vision, beauty, aspiration, peace, faith . . .

"We give of ourselves when we give the gift of time; when we are minute builders of more abundant living for others. . . .

Our objectives as an Auxiliary, whether it be on a National, State or County level, are the same. The entire program of the organization was published in the May issue of the Bulletin. It will be your privilege to choose the projects you propose to carry out according to your community needs. Familiarize yourselves with the A, B, C's for auxiliary action during the year. You will need the tools to work with, namely: Bylaws, Finance, Publications, Reports, History and Parliamentary procedure. Through PROGRAM, you will be prepared to speak for medicine through Membership, Bulletin circulation, AMA-ERF and Legislation. Through COMMUNITY SERVICE you will prove medicine's concern for the welfare of the community through Civil Defense, Health Careers, International Health Activities, Mental Health, Rural Health Safety and Special projects.

Other fields of activity might include the promotion of suicide prevention work, or an outline for work on gun safety in the home, and last but by no means least, the sponsoring of an educational program on medicine and religion.

Emphasis on community service will be our goal for the year and we do "expect to rate, because we plan to communicate".

*Pat Uznanski
(Mrs. Matthew C.)
President*

Europe Bound!

ISMS JET TOUR to Europe Poses before boarding their Pan-Am jet to London July 25. Physicians and their wives and ISMS staff personnel enjoyed a three week holiday.



Dr. Eisele Named Chairman—Community Health Week

Dr. Matthew B. Eisele, East St. Louis, has been named state chairman for the 1963 Community Health Week observance scheduled Oct. 20-26.

The appointment was announced earlier this month by Dr. Leo P. A. Sweeney, chairman of the ISMS Public Relations Committee.

"Dr. Eisele is a real dynamo when it comes to organizing men and ideas behind important community health projects," said Dr.

Dr.
Eisele



Sweeney. "It it weren't for his efforts toward last year's program I don't think we would have a Community Health Week."

As chairman of the ISMS PR subcommittee on community relations, which instituted a statewide health week last fall, Dr. Eisele was one of the prime movers in planning an ambitious Community Health Week pilot program in St. Clair county.

So successful was this program that it resulted in a recommendation by the AMA House of Delegates that all state and county medical societies be encouraged to conduct similar programs in

a nationwide Community Health Week.

In the July-August issue of PR Doctor, the AMA saluted Dr. Eisele for his major contributions to the Community Health Week program and congratulated ISMS for an imaginative program of public service.

Committee Urges Use of Vaccine

The ISMS Child Health Committee is in the midst of a statewide publicity campaign to stamp out measles.

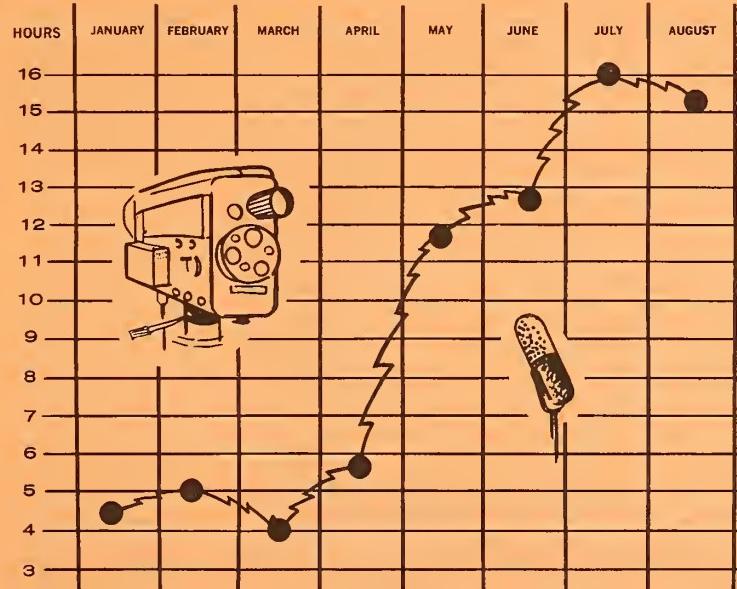
The campaign was launched with a press release August 23 from ISMS President Dr. Harlan English, Danville, Ill., urging parents to have their children immunized before the start of the fall school term.

The Child Health Committee—under the direction of its chairman, Dr. Ralph Kunstadter, Chicago—then prepared a three-part newspaper series dealing with the history of measles, the seriousness of the disease, and the new hope from vaccines. These stories will be released for publication to all Illinois dailies the week of Sept. 16-20.

Newspapers also were supplied with dozens of "fillers"—short items used to fill "holes" at the bottom of a column of type—dealing with the severity of measles.

In addition, a 10-second television spot urging immunization was prepared and distributed to all of Illinois' 19 TV stations.

Radio-TV Time Remains High



YOUR STATE MEDICAL SOCIETY is doing more public service radio and television programming today than ever before in history. During July alone, some 18 physicians made 33 personal appearances before the microphone or camera for a record total of 16 hours of broadcasting. Physicians are proving so popular on the air, the ISMS PR staff is having difficulty meeting the increasing demands for programs and personal appearances by physicians.

Seek Wide Registration For MSHT Television Series

If you can't beat 'em, join 'em! And that's exactly what ISMS will do this fall when it beams the Medical Self Help course into

the homes of thousands of Chicago area television viewers.

Medical Self Help—designed to train one member in every family

to handle medical emergencies—will be broadcast as a certified television course over Station WTTW, Channel 11, at 8:30 p.m., Thursday evenings, starting October 10, and continuing for 16 weeks.

Why television? "First of all," explained Dr. Max Klinghoffer, chairman of the ISMS Disaster Medical Care Committee, "we don't have enough instructors to promote and teach the course.

"Secondly, it's becoming increasingly difficult to lure adults from the privacy of their homes in the evenings. So if they won't come to us for the course, we'll take it to them," Dr. Klinghoffer said.

Since Station WTTW's telecasting range covers a 60-mile radius of Chicago, residents of Cook, DuPage, Elgin, Grundy, Joliet, Kane, Kendall, Lake, McHenry and Will counties will have an opportunity to enroll in MSHT and earn a certificate of recognition.

Interested viewers may register for the course by writing to "Medical Self Help, WTTW, Channel 11, Box 1100, Chicago, Illinois." ISMS will confirm their registration by sending them free, a 90-page booklet entitled "Family Guide Emergency Health Care," for use in conjunction with the TV lessons.

Upon completion of the 16 lessons, students will be tested at strategically located testing centers throughout the area.

Spearheading the promotion of the course with the aim of registering 10,000 students will be the Civil Defense Committee of the ISMS Woman's Auxiliary.

Mrs. J. Malcolm Tindal, committee chairman, will also solicit the help of auxiliaries in the aforementioned counties.

The televising of Medical Self Help will be made possible through the generous assistance of the Illinois Department of Public Health—co-sponsor of the series—which underwrote \$10,000 of the estimated \$14,000 production cost.

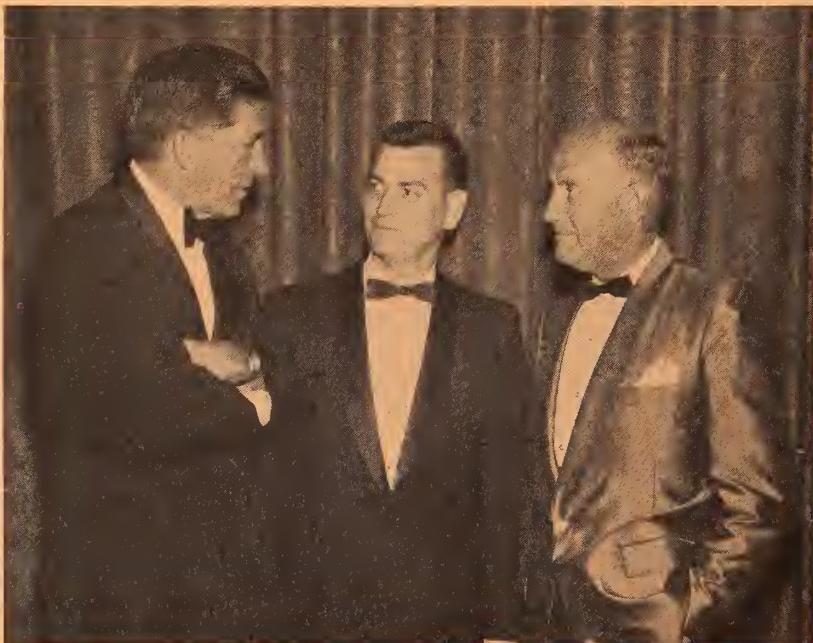
The series will be written, produced and co-ordinated by the ISMS Public Relations staff.

The 16-program series is currently being pre-recorded on video tape to enable its telecasting in other areas of the state at a later date.

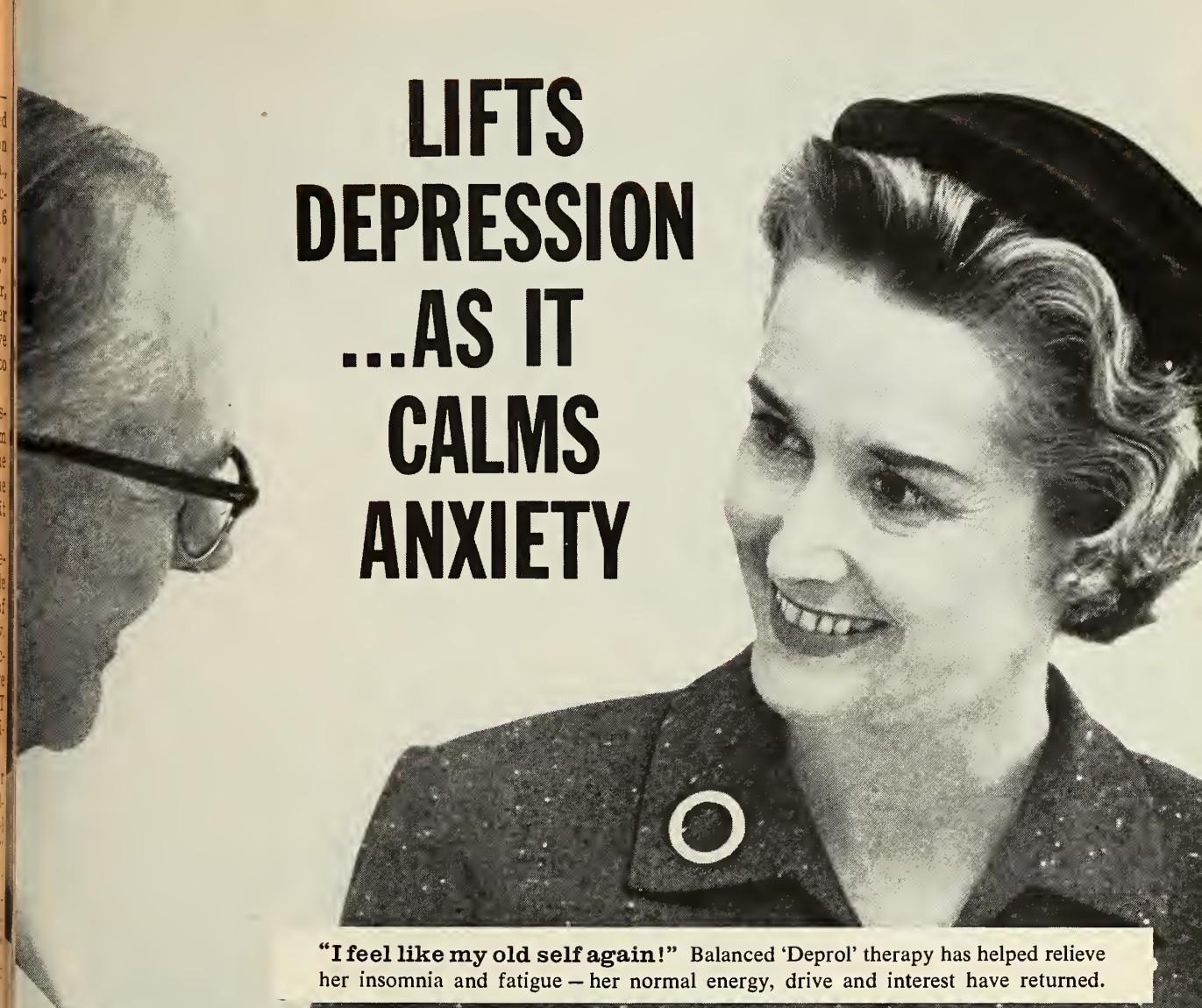
Flying Physicians Hold Aurora Meet



MEDICAL DISASTER EVACUATION is the subject of this demonstration staged at Chicago's Midway Airport by the Air Force for members of the Flying Physicians Association holding their National Convention. The Association's members are prepared to fly to any area of the U.S. to render emergency medical care.



FEDERAL AVIATION AGENCY Administrator Najeeb E. Halaby, (left) was the featured speaker at the Association banquet which also featured AMA president, Dr. Edward Annis (right). Dr. Harold Brown, Lombard, Illinois (center) is the president of the Association. (A complete report of the FPA Convention will appear in the October Illinois Medical Journal.)



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NEWS AND ANNOUNCEMENTS

Chicago E.N.T. Specialist Heads International Congress at Leiden



CHICAGO OTORHINOLARYNGOLOGIST, Dr. Maurice H. Cottle lectures some of the delegates to the International Rhinology Congress held at the University of Leiden, The Netherlands.

The University of Leiden, The Netherlands, returned in July to its status of 250 years ago as a medical school drawing students from every continent.

The magnet in the early part of the 18th century was Dr. Herman Boerhaave, whose teaching methods were carried by graduates to every country, including the American colonies, and which became the foundation of modern medical education.

In July, the attraction was a five-day international rhinology congress followed by an intensive, two weeks' course in reconstructive surgery of the nasal septum and external pyramid presented with the cooperation of the American Rhinologic Society.

The guest professor and director of the course and guest of honor at the congress was Dr. Maurice H. Cottle, professor of otorhinolaryngology, Chicago Medical School. Dr. Cottle was assisted as instructors by 34 fellow members of the society from 19 states, and by 15 surgeons from other countries who were invited to participate.

The nearly 100 "students," all established in the E.N.T. field, came from 23 countries. Australia, Japan and China were among those represented.

They were introduced to new surgical techniques, to recently developed tests of nasal functioning which may reveal the existence of otherwise not apparent disease, and to the use of soft, recorded chamber music as an operative aid and which is heard through ear-

phones only by the patient undergoing surgery with local anesthesia.

They also were shown the relationship of nasal efficiency to the activities of the heart, lungs and other organs, and the correction of nose deformities which affect other parts of the body. Closed circuit television was used to present closeups of the surgery.

Another Chicago participant was Dr. Robert Gronner, assistant professor, department of neuropsychiatry, Northwestern University.

Dr. Roland M. Loring, assistant professor of otorhinolaryngology, Chicago Medical School, also was to have been an instructor but he had to undergo emergency surgery just before his scheduled departure for the meeting.

The University of Leiden was established in 1575 as a reward to the heroic people of the city. In 1574, they withstood a 90-day siege by a powerful Spanish army which had swept through the country in a move to put down an insurrection against the Inquisition. This was the turning point, and eventually led to freedom from Spanish rule.

The modern Boerhaave Medical School Center alone comprises 19 large buildings, many of which cover nearly a block.

One of the largest buildings is devoted solely to the teaching of otorhinolaryngology and has an ear, nose and throat clinic. A new addition, costing more than \$1,000,000, was dedicated at the start of the congress. Dr. Cottle gave the dedicatory address.

"This clinic is pre-eminently fitted to continue to forge the way of future scientific explorations in rhinology," he said.

Irish Assumes New Post at Northwestern

A "young veteran" of medical administration and of the Illinois State Medical Society, assumed a new post in academic medicine September 1, Don Elon Irish, formerly acting director of the Department of Public Relations, has been appointed Administrative Assistant Prosthetic-Orthotic Education, Northwestern University Medical School.

Don joined the Society in 1960 after serving as Assistant Executive Secretary for both the Jackson County, Missouri and Maryland State Medical Societies. He is a 1958 graduate of the University of Missouri, with B.S. in Public Administration and Business.

While with the Society, he operated the lay Speakers Bureau—pioneering the programming of speakers to high schools on the subject of "Alcohol and Tobacco"; represented the Society at the Health Career Council of Illinois; assisted in the development of the Disaster Manual for Hospitals; and was a moderator of the "Medical Interview" radio series of the Public Relations Department.



Don Irish

During his three years with the Society, Don had the opportunity to meet many of the more than 10,000 Illinois physicians personally. We feel that they, like the staff, wish him success in his new position.

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Krebiozen Study Established

A special Committee to study and review the facts concerning the drug Krebiozen requested by the Illinois State Medical Society Board of Trustees has been appointed by the Illinois Department of Public Health. Members of the Committee are Dr. E. A. Piszczeck, president-elect of ISMS and chairman, Illinois Board of Public Health Advisors, Dr. Lowell Coggeshall, Chicago, University of Chicago; Dr. Warren Cole, University of Illinois College of Medicine; Dr. Edwin F. Hirsch, pathologist; Dr. Alexander Karczmar, Stritch School of Medicine; Dr. Paul Holinger, Chairman, Board of Governors Institute of Medicine of Chicago; Albert E. Jenner, former president of the Illinois State Bar Association; Dr. Hyman Zimmermann, Chicago Medical School; Dean Richard Young, Northwestern University Medical School; and Mr. Leonard Spacek, managing partner of Arthur Andersen and Company. In approving the study, Governor Kerner urged

that the state committee complement the proposed federal investigation of the drug.

Hospital News

Grant Hospital of Chicago has formally opened its new psychiatric wing. The facilities are geared to short-term intensive treatment of emotional disturbances. The 24-bed unit has been planned so that even though it has all the therapeutic and diagnostic facilities of a general hospital at hand, it will bridge the gap between the normal home environment and the usual hospital environment.

Franklin Boulevard Hospital has just graduated the first students from its course in surgical technology—the nation's first formal course in this area. The operating room technologist is in charge of the surgical instruments and for cleaning and draping the patient and assisting the surgeon with sterile gloves, stitches and other equipment. In addition to practical

Recent reports suggest...insulin and sulfonylureas may accelerate lipogenesis, fat accumulation, weight gain; thus appear to aggravate obesity in diabetics¹⁻⁵ ...serum "insulin" levels are often elevated in obese diabetics^{2,3,6}...DBI (phenformin HCl) reduces high blood sugars, lowers elevated "insulin" levels, tends to reduce body weight toward normal.^{1,3,7-9}

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experience in the operating room of the Hospital, the curriculum has included university courses in anatomy, microbiology, bacteriology and physiology.

Plans have been approved for a 760 bed Veterans Administration Hospital near the University of Chicago School of Medicine.

M.D.s in the News

In special recognition of his contributions to accomplishment of the Army mission, the Secretary of the Army's Certificate of Appreciation for Patriotic Civilian Service has been awarded to Dr. James B. Mason, Assistant Director of the American College of Surgeons, who heads the group of medical consultants who advise the Surgeon, Fifth U.S. Army. He was cited for "exceptional patriotic service to the United States Army." . . . Dr. Ivan Kasperek has been appointed Medical Director of

Resthaven Hospital in Elgin, Illinois. Dr. Kasperek formerly practiced psychiatry in Prague. . . . Dr. Samuel J. Taub, Professor of Medicine Emeritus, Chicago Medical School, will present a paper before the European Academy of Allergy at Bologna, Italy, in October. . . . Dr. Roy E. Ritts, Jr., professor of Microbiology at Georgetown University School of Medicine, has been appointed assistant director of the Division of Scientific Activities of the American Medical Association.

Dr. Leo M. Zimmerman has been elected president of the Society of Medical History of Chicago.

The Illinois Society of Anesthesiologists has elected Dr. Max S. Sadove as President.

Scientific Speakers Bureau

The film "The Management of Hemolytic Disease of the Newborn" will be shown to three county medical societies. October 1, Dr.



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administered to ketoacidosis-resistant diabetics requiring hypoglycemic therapy: A. act to reduce high blood sugar without increasing fat synthesis or weight gain as insulin and sulfonylureas tend to do. B. do not increase already elevated endogenous insulin levels; may, indeed, act to restore more normal insulin levels. C. favor reduction of weight towards normal.

Insulin is still the essential hypoglycemic agent for the ketoacidosis-prone diabetic. However, in the ketoacidosis-resistant obese diabetic phenformin appears to be the hypoglycemic of choice to help avoid weight gain or reduce adiposity, a factor tending to make control more difficult and to increase the likelihood of complications.

Summary: Indicated in stable adult diabetes, sulfonylurea failures and unstable diabetes. Gastrointestinal side effects occurring more often at higher dosage levels abate promptly upon dosage reduction or temporary withdrawal. Occasionally an insulin-dependent patient will show "starvation" ketosis (acetoneuria without hyperglycemia) which must be differentiated from "insulin-lack" ketosis, and treated accordingly. Use with caution in severe liver disease. Not recommended without insulin in acute complications (acidosis, coma, infections, gangrene, surgery). Consult product brochure for full information.

Bibliography: 1. Williams, R. H.: *Textbook of Endocrinology*, Ed. 3, Saunders, Philadelphia, 1962, p. 610. 2. Gordon, E. S.: *Metabolism* 11:819, 1962. 3. Grodsky, G. M. et al.: *Metabolism* 12:278, 1963. 4. Sadov, H. S.: *Metabolism* 12:333, 1963. 5. West, K. M. and Tophoj, E.: *Metabolism* 10:689, 1961. 6. Yallow, R. S. and Berson, S. A.: *Diabetes* 9:254, 1960. 7. Weller, C. et al.: *Scientific Exhibit*, A.M.A., June 1962. 8. Weller, C. et al.: *Metabolism* 11:1134, 1962. 9. Radding, R. S. et al.: *Metabolism* 11:404, 1962.

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Robert H. West will present the film in Madison County, November 5 to Vermilion County, and November 7 to the Fulton County Medical Society.

—Announcements—

Nutrition Conference

The annual Nutrition Conference, co-sponsored by the Illinois State Medical Society and the Illinois Nutrition Committee, will be held October 5 at the Hotel St. Nicholas, Springfield.

The theme for this year's conference is "Ensuring a Safe and Adequate Food Supply." The program features Mr. Clarence Klassen, Chief Sanitary Engineer, Illinois State Department of Health discussing "Water in Relation to a Safe and Adequate Food Supply"; Dr. Grace Goldsmith, Chairman of the Food and Nutrition Board, National Research Council discussing "Current Problems in the Field of Safe and Adequate Food Supply." Dr. Julius Kowalski, author of the Illinois Medical Journal feature "Medicine in the Out-of-Doors" and Chairman, ISMS Committee on Public Safety, will discuss "Pesticides—A Physician's Point of View." Drs. Paul Cannon, National Research Council, and Ernest Anderson, University of Illinois, complete the program in separate discussions of the theme.

Registration is free to members of the Illinois State Medical Society.

Award Offered

The Institute of Medicine of Chicago is offering its annual prize of \$750 for the most meritorious investigation in medicine or its specialties. The investigation may also be in the fundamental sciences provided the work has a definite bearing on some medical problem. The Joseph A. Capps prize is open to graduates of Chicago medical schools who have completed their internship or one year of laboratory work within a period of five years prior to January 1, 1963 excluding their terms of service in the Armed Forces. Manuscripts must be submitted to the Institute, 86 East Randolph, Chicago 1, not later than December 31, 1963.

PG Courses

The State University of Iowa, Iowa City will offer the following postgraduate courses in the near-future: Sept. 18-19—Pediatrics; Oct. 11—Diagnostic Techniques in Office and Surgical Urology; Oct. 18—Arthritis and Rheumatism.

To meet the growing need for further training and experience in the areas of psychiatric diagnosis and treatment for general practitioners and physicians other than psychiatric specialists, basic and advanced courses will be offered by the Department of Psychiatry and Neurology of the Chicago Medical School.

Courses will be offered on Wednesdays beginning in October. Advance registration is required and may be obtained by writing, H. H. Garner, M.D., Chairman, Dept. of Psychiatry and Neurology, Chicago Medical School at Mount Sinai Hospital, 2755 West 15th Street, Chicago 8, Illinois.

Gastroenterology: Diseases of the Small Intestine will be the subject of a postgraduate meeting of the Cleveland Clinic Educational Foundation, October 2-3. Information and registration may be procured from the Education Secretary, The Cleveland Clinic Educational Foundation, 2020 East 93rd Street, Cleveland, Ohio.

The American College of Chest Physicians will offer postgraduate education in the Recent Advances in the Diagnosis and Treatment of Diseases of the Heart and Lungs, in Washington, D.C., October 14-18. This Conference will be followed by a Chicago meeting on Clinical Cardiopulmonary Physiology, October 21-25. Information may be obtained from the College, 112 East Chestnut Street, Chicago 11, Illinois.

Milwaukee will be the host for the next post-graduate course of the American College of Physicians, October 21-25. Common Problems in Endocrinology and Metabolism: Basic Concepts and Clinical Application will be the subject. Information may be obtained from the College, 4200 Pine Street, Philadelphia 4, Pa.

The Scientific Assembly of Interstate Post-graduate Medical Association will be held at the Palmer House, Chicago, October 21-24. The

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program will be geared to the needs of the general practitioner.

The Annual Rocky Mountain Medical Conference, Oct. 30-Nov. 2, Las Vegas, is designed to provide information of everyday use to all areas of medical interest. The Conference will feature scientific papers and panel discussions by sixteen nationally known physicians.

The Diabetes Association of Greater Chicago will conduct the Seventh Annual Symposium on Diabetes at the A. B. Dick Amphitheatre, Presbyterian-St. Lukes Hospital, 1753 West Congress Parkway, Chicago, November 15. Further information is available from the Association, 620 North Michigan, Chicago 11.

The Universities of Miami and of Florida Schools of Medicine have announced a Post-graduate Seminar in Anesthesiology to be held in Miami Beach, Florida, January 5-8, 1964. The theme for the seminar will be the "Cardio-vascular System" and will provide information for the internist, surgeon, pharmacologist and

anesthesiologist. Further information may be obtained from the Department of Anesthesiology, University of Miami School of Medicine, Jackson Memorial Hospital, Miami 36, Florida.

Lecture Series

The "psychological anatomy" of the American Family in crisis is the theme of Forest Hospital's Sixth Annual Scientific Lecture Series. The series opened September 10 with Dr. Talcott Parsons, sociologist, discussing the "new American family," its structure and evolution. Other lectures in the monthly series will include Dr. Ray L. Birdwhistell, anthropologist, October 9, at 8 p.m. discussing the "Search for the Nature of Communications." The "Cross Cultural Comparison of Dependency Phenomena" will be the November 13 lecture delivered by Dr. Charlotte Babcock, psychiatrist. Other lectures planned for the series include family therapy dynamics, psychotic children and approach to the treatment of the disturbed family.

Forest Hospital is a psychiatric treatment center in Des Plaines, Illinois. A detailed pro-

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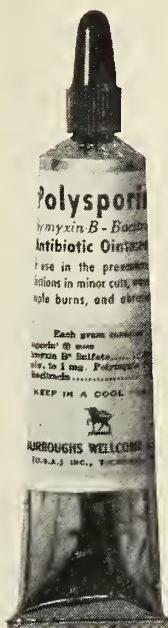
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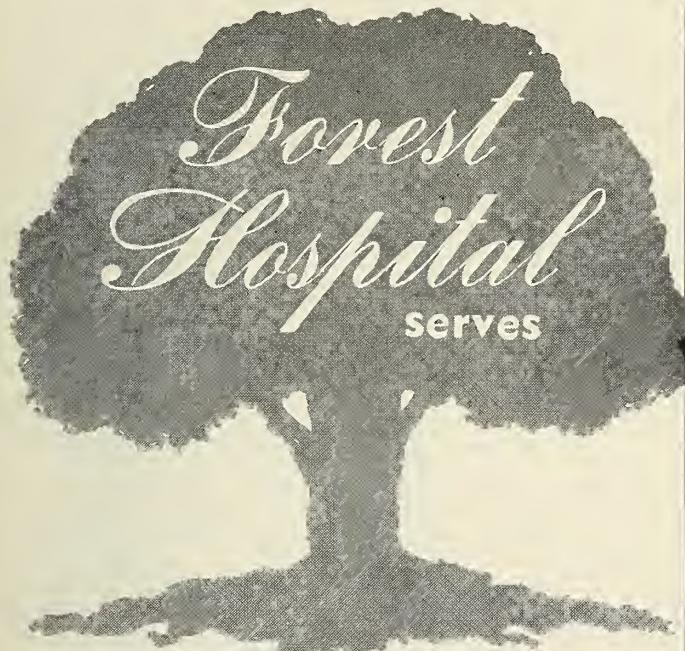
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gram of the lectures may be obtained by writing the Hospital, 555 Wilson Lane, Des Plaines.

Meeting Memos

National Rural Health Conference, Hot Springs, Arkansas, September 20-21.

American Society of Clinical Pathologists, Chicago, Sept. 27-Oct. 5.

Clinical Orthopaedic Society, Detroit, Oct. 3-5.

American Academy of Pediatrics, Oct. 5-10.

Society for Pediatric Radiology, Montreal, Oct. 7.

American Roentgen Ray Society, Montreal, Oct. 8-11.

Congress of Neurological Surgeons, Denver, Oct. 9-12.

American Association of Medical Assistants, Miami Beach, October 9-13.

American Society of Maxillofacial Surgeons, Washington, D.C., Oct. 10-13.

American Society of Clinical Hypnosis, San Francisco, Oct 11-13.

American Association of Plastic Surgeons, Washington, D.C., Oct. 13-18.

World Medical Association, Mexico City, Oct. 14-20.

American Dietetic Association, Philadelphia, Oct. 15-18.

Society for Clinical and Experimental Hypnosis, New York, Oct. 15-18.

Academy of Psychosomatic Medicine, San Francisco, Oct. 17-20.

Central Neuropsychiatric Association, Houston, Oct. 17-19.

Founders Week, St. Louis University, October 17-22.

Interstate Postgraduate Medical Association, Chicago, Oct. 19-24.

American Academy of Ophthalmology and Otolaryngology, New York, Oct. 20-25.

American College of Gastroenterology, Washington, D.C., Oct. 20-23.

Internists Meet

The Illinois Society of Internal Medicine will meet for a luncheon meeting and program September 29 in Springfield at the St. Nicholas Hotel. Dr. Maxwell G. Berry, President of the American Society of Internal Medicine, will be the keynote speaker.

Deaths

Earl S. Axtell*, Rantoul, a graduate of the Chicago College of Medicine and Surgery in 1913, had practiced medicine in Gifford for fifty years. He was an emeritus member of ISMS and a member of the Fifty Year Club. He died July 25, aged 81.

Wilbur W. Bartels, Lincoln, Nebraska, formerly of Chicago, graduated from Loyola University Medical

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School in 1941 and was chief of orthopedic surgery at the Lincoln Veterans Hospital. He died July 25, aged 52.

John W. Burrell, Chicago, in practice since 1915, a staff member of Provident hospital, died July 10, aged 83.

William E. Carnahan*, Macomb, "Doctor of the Year" in 1961, died August 7, aged 78. He graduated from the University of Illinois Medical School in 1914. He practiced in McDonough county, Macomb and Adair, ISMS, of which he was an emeritus member, had elected him "Outstanding Illinois General Practitioner for 1961."

Daniel J. Duggan*, Chicago, died in June, aged 65. He was a graduate of Harvard Medical School in 1923, a specialist in surgery.

Richard H. Fahrner*, Joliet, died July 29, aged 50. He graduated from St. Louis University in 1938. During World War II he served as a captain in the Army medical corps.

Samuel C. Fleming, Paw Paw, graduated from the University of Chicago in 1910 and the University of Illinois in 1913. He served in the medical corps in France. He died July 12, aged 76.

Nicholas S. Johnson*, Sheffield, graduated from Northwestern Medical School, studied two years in Vienna, Austria and one year in India. He died July 4, aged 68.

H. I. Kaell*, Chicago, a graduate of the University of Illinois College of Medicine in 1942, was chairman of the department of orthopedic surgery at Resurrection Hospital, a staff member at Holy Family Hospital, Des Plaines, a member of the advisory committees of the National Polio Foundation and the American Rheumatism Society, a diplomate of the American Board Academy of Orthopedic Surgeons and an examiner for the American Board of Orthopedic Surgery. He died July 12 at the age of 47.

Frank Hughes Lally*, a physician and surgeon for over 50 years, died August 9, aged 78. He was on the staff of St. Francis Hospital in Blue Island, a member of the Fifty Year Club of ISMS.

Robert H. Lindquist, Chicago, was a graduate of the University of Chicago Medical School and was assistant chief of the cardio-pulmonary laboratories at the West Side Veterans Hospital. He died July 3, aged 34.

Linn F. McBride*, Evanston, had practiced in Chicago and Evanston since 1915 as an ear, nose and

throat specialist. He was an emeritus member of the otolaryngology department of Northwestern University and emeritus staff member of Evanston and Wesley Memorial hospitals. He served in the Medical corps in World War I and was formerly medical director of the Illinois Bell Telephone company. He was a member of the Fifty Year Club of ISMS. He died July 31, aged 74.

Rob Roy McLallen*, Elgin, had been a physician and surgeon in Oak Park for 30 years until he retired in 1948. He had also been associated with Western Electric hospital, Hawthorne works. He died July 7, aged 80.

Harrison C. Putman, Canton, practiced 61 years before retirement in 1961, a graduate of Rush Medical College in 1899, he was a member of Graham Hospital's first medical staff. He was an emeritus member and a member of the Fifty Year Club of ISMS as well as past president and 50 year member of the Fulton County Medical Society. He died July 20, aged 86.

John M. Radzinski*, Oak Park, originally from Poland, graduated from Rush Medical College in 1928. After serving as assistant professor of neurology at Rush Medical College and the University of Illinois, he practiced in Paris and Vienna in 1939. He was a staff psychiatrist at St. Mary of Nazareth and Pinel Hospital. He died August 12, aged 62.

Ebden (Eric) Gregory Roberts*, prominent Rockford leader, died July 28, aged 58. Originally from Trinidad, British West Indies, he had practiced in Rockford for the past 20 years. He was a graduate of the Howard University School of Medicine in 1936.

John Anthony Rose*, Chicago, died June 16, aged 62. He graduated from Chicago Medical School in 1929 and specialized in obstetrics and gynecology.

Edward C. Ryan*, Chicago, a graduate of the University of Notre Dame in 1916 and from Northwestern University Medical School in 1920. He was a staff member of St. George and St. Bernard hospitals. He died July 15, aged 68.

Joseph M. Schiavone*, a graduate of the University of Illinois College of Medicine, practiced in Chicago for 36 years. He was on the staff of St. Ann's hospital and formerly at Wesley Memorial and Northwestern University Medical School. He died July 30, aged 62.

Benjamin Charles Schnell*, Pecatonica, was named "Outstanding General Practitioner of the Year" in 1959 by the Winnebago County Medical Society. He

retired in 1960 after having practiced in Pecatonica since 1920. During World War I, he served with the Army medical corps and had graduated from Washington University School of Medicine in St. Louis in 1912. He died August 2, aged 75.

Otto W. Schreiner*, Chicago, died July 18, aged 71. He graduated from Loyola University School of Medicine in 1919, had been a general practitioner and medical director of Wilson and Co. for over 40 years.

Roman Siemens*, Beverly, died July 19, aged 45. He was a graduate of Loyola University School of Medicine in 1943 and a specialist in surgery.

Charles Henry Spears*, graduated from St. Louis University in 1897, did post graduate work in the Chicago Eye, Ear, Nose & Throat Hospital in 1898 and he later studied in London and then Washington, D.C. He died July 10, aged 90. He was an emeritus member of ISMS as well as a member of the Fifty Year Club and he also was a member of the Associated Surgeons of American Railways. He was the last living member of the original medical staff of Burnham City hospital.

Lloyd F. Teter*, Pekin, a graduate of Loyola University in 1930, a veteran of World War II, died July 22, aged 60. He was the newly-elected president of the Peoria-Tazewell Heart Association and he was a mem-

ber of fourteen other medical associations. His specialty was surgery.

Edgar A. Weber Jr., Chicago, a graduate of Loyola University Medical School in 1937, specialized in internal medicine and for 25 years had the same offices on the south side of Chicago. He was president of the Jackson Park Medical Staff and he died August 3, aged 52.

Alfred C. Wendt Jr.*, Chicago, died August 11, aged 50. A graduate of Loyola University Medical School in 1938 and a World War II veteran, he was on the surgical staffs of Christ Community and Evangelical hospitals. He was an emeritus member and a member of the Fifty Year Club of ISMS.

*Indicates member of Illinois State Medical Society.

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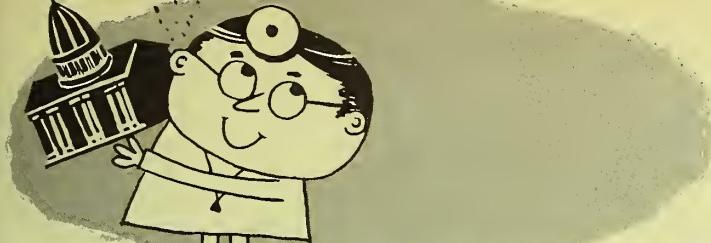
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LEGISLATIVE LISTENING POST

October, 1963

CLARIFICATION OF NEW LABORATORY LEGISLATION

CLINICAL LABORATORIES BLOOD BANK-BLOOD BANK DEPOSITORIES

SB 1103 -- Requires the registration of - Appropriates \$30,000 to the Department of Public Health.

SB 1104 -- Creates a commission to survey and study - Appropriates \$10,000.

This past session of the legislature spent considerable time in discussion of this issue. The following is designed to enlighten you:

The increasing reliance of physicians on laboratory methods for diagnosis of disease and control of treatment makes it tremendously important that these examinations be properly carried out by adequately trained and effectively supervised personnel. Particularly in the field of Blood Banking, there is "no margin for error." The members of the American Medical Profession have long recognized these facts and have expressed their recognition by resolutions in State Medical Societies (including ISMS) and the American Medical Association which specify that such examinations properly constitute a part of the practice of medicine and recommend that patients be referred to laboratories directed by physicians.

Recent articles in the quasi-professional and lay press have suggested that all is not well in the field of blood banking and clinical laboratory performance. There have been instances reported in other states in which specimens were studied by grossly inadequate means or blood for transfusion collected from improperly screened donors. In each case, the ultimate loser has been the patient.

The Illinois General Assembly had this situation brought to its attention when a State Representative introduced a bill which would have established an extremely elaborate system of laboratory evaluation and licensure (HB 838). The disadvantages apparent to the medical profession were that the existence of a situation requiring statutory correction had not been demonstrated in Illinois, that it had not been determined that the methods proposed were those which would most effectively control abuses (if such existed), that the budgetary support provided was inadequate, and that one of the effects of the proposed legislation would have been to confer "legitimate" status on existing sub-standard laboratories and blood banks (if any).

A legislator started out with the idea that there should be some legislation in this area. Before he got through with the thing, he picked up ideas here and there and finally came up with legislation which we felt wasn't practical.

When this legislation was being discussed, one of the legislator's selling points as far as the Legislature was concerned was the fact that we had no information about this particular group and he thought that it was necessary that we have legislation which would permit the registering of these blood banks.

It was believed there is a lot of poor laboratory work being done in this state without regulation. All you need to have is a microscope, a bottle of stain, a laboratory, and you can hang out your shingle. You are then in business. This is true anywhere except in the city of Chicago where there is some regulation. However, the Chicago regulations primarily concern physical facilities of the office.

At the instigation of ISMS and the Department of Health, two alternate bills (SB 1103 and SB 1104) were introduced, passed, and signed by the Governor. These bills provide for a one time "Registration" of clinical laboratories and blood banks in this state, to be, in effect, a "census" of existing facilities which would provide information on their ownership, direction, nature and extent of services provided. A legislative commission composed of members of the General Assembly and professional representatives from the Clinical Laboratory and Blood Bank field is to be named by the Governor. This group will make use of the data gathered in the course of the registration, will study and make recommendations to the General Assembly not later than March 15, 1965.

There is a penalty section of the new law. Any person who fails to comply with the provisions is guilty of a misdemeanor. Fine cannot be more than \$1,000 or imprisonment for six months or both. In other words, the action on this is really brought to bear upon the operator himself.

Under the voluntary approval, the Department of Health has over 600 laboratories already registered. They offer them a choice of a few tests, for instance, a small TB sanitarium downstate may be approved only for TB smear diagnosis or it may be approved for 4, 5, or 6 tests. It is hard to say. Their syphilis test list for compliance with the premarital examination act is 465 currently approved laboratories.

The Laboratory Evaluation Committee of ISMS has been continued and the formation of similar such committees at local levels has been authorized by the House of Delegates. It is hoped that the profession will not wait for the results of legislative action but will initiate studies in their own area designed to provide the members of the profession with information concerning laboratory and blood bank practice "in their own back yard."

OPERATION HOMETOWN

Under the guidance of J. Ernest Breed, M.D., in Cook County, and Ralph N. Redmond, M.D., for downstate, considerable progress is being made. Many of the branches in Chicago and counties downstate have named their Operation Hometown chairmen.

The literature distribution group has a good circulation of literature. It is necessary this be done in order for every one to have an understanding of our philosophies. Our competition has been at work.

The latest word seems to indicate there will be hearings on the King-Anderson legislation in Washington, D.C., yet this month or early in November.



Illinois Medical Journal

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EDITORIALS

NEWS OF THE STATE AND ANNOUNCEMENTS

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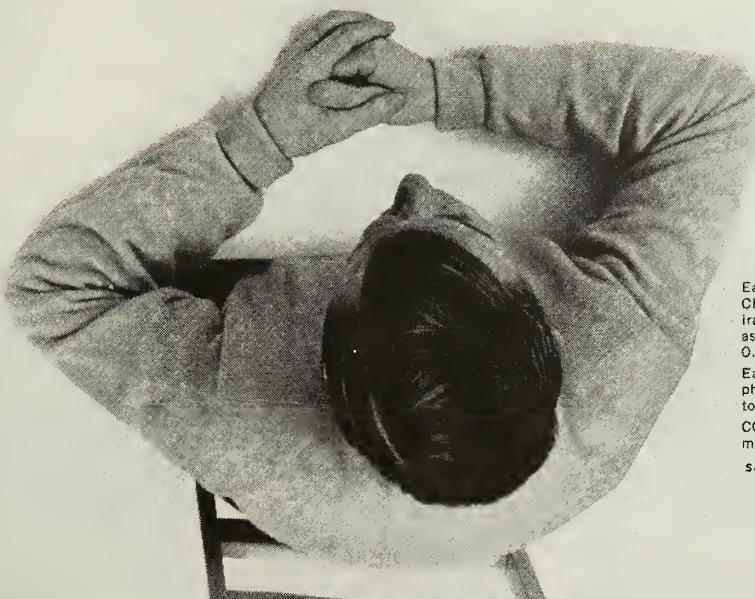
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S-161

Implementation of House-Approved Resolutions

Attention Delegates and Secretaries of County Societies:

The following is a progress report on those resolutions which were accepted, or amended and then accepted by the 1963 House of Delegates of ISMS. All resolutions not listed in this report were rejected by the House of Delegates.

Resolutions #63-2, 3, 4, 10, 13 & 18 Citizenship Requirement for Members

These resolutions as referred to the Reference Committee on Constitution and Bylaws were appropriately amended by the House of Delegates to implement the general intent. Publication of the new Bylaws include an amended portion to provide for conditional membership for licensed physicians who are not citizens and fulfill all other requirements.

Resolution #63-6 Section on General Practice

This has been referred to the Special Committee to Study the Annual Meeting for consideration and report to the House of Delegates in 1964.

Resolution #63-8 Financing of School System in Illinois

This has been referred to the Committee on Medical Services as a policy for their guidance.

Resolutions #63-9 and 63-20 Payment for Medical Care for IPAC Patients

These have been referred to the IPAC Advisory Committee for appropriate discussion and report to the Council of the Chicago Medical Society.

Resolution #63-12 "The Public Image" Of the Doctor of Medicine

This was referred to the Board of Trustees for study by the House of Delegates. The resolve reads as follows:

"That a definite effort be made to improve the public image of the Doctor of Medicine by publicizing the many cultural activities engaged in by the physicians of Illinois, in addition to their contribution to preventive medicine, public health and other activities."

The Public Relations Committee has been asked to prepare a report on their past activities in this area and consider what might be implemented in the future for consideration at a future meeting of the Board of Trustees.

Resolution #63-14 Preliminary Relative Value Study

This has been referred to the Committee on Relative Value Study for implementation. One portion of the resolve indicated that each member of the Society be provided a revised version of the Study. This would have been a very expensive procedure—perhaps as much as \$10,000.

It was, therefore suggested that the Committee be authorized to make an announcement that copies will be made available to all members who desire to have them upon request. This will reduce publication cost, and at the same time fulfill the intent of the resolution.

Resolution #63-15 Study of Evaluation of Toxicants

This was presented at the June 1963 meeting of the AMA. It was adopted and referred to the Board of Trustees for implementation.

Resolution #63-16 Discovery Depositions by Physicians

A copy of this will be provided to the Illinois State Bar Association with a copy to the Liaison Committee to the Illinois Bar Association for follow-up discussions with representatives of the Bar Association, the Illinois Judicial Conference and the Supreme Court of Illinois.

Resolution #63-21 Proper Use of Laboratory Animals in Vital Scientific Research Programs

This was referred to the Committee on Medical Services for implementation and further discussions with representatives in the Federal Congress.

Resolution #63-23 and 24 Prevention of Casualties from Flammable Fabrics

This was introduced at the June 1963 AMA meeting and was referred to the Board of Trustees for study and appropriate action.

Resolution #63-25 Opposition to Health Professions Act (S-911, formerly HR-12)

This was discussed with the Executive Vice President of the AMA, and appropriate officers of the AMA by Dr. Harlan English, President of the Illinois State Medical Society. A similar resolution was introduced at the June 1963 AMA meeting by delegate William K. Ford, M.D. of Rockford. The AMA reference committee asked that "the policy of the association with respect to bricks and mortar be reviewed and re-evaluated." In the interim, inasmuch as there is now in effect a policy on "bricks and mortar," the resolution was not adopted.

Resolution #63-27 Operation Hometown

Inasmuch as the Board of Trustees introduced this resolution at the request of the Committee on Medical Services, it is presently being implemented by the Committee on Medical Services through the County Medical Societies.

Resolution #63-29 Physician Care of Indigent Persons

This resolution was given appropriate publicity and an announcement made to the public immediately following the action of the House of Delegates. It was also referred to the Committee on Public Relations for further guidance in publicizing the policies of the Illinois State Medical Society.

Reference Committee Comments on Reports of Officers & Committees

In the reference committee reports appear many comments and recommendations, primarily based upon committee observations submitted to the House of Delegates. Rather than enumerate all of these and recommend referral, the Chairman of the Board in conjunction with the Executive Administrator was instructed to refer these comments to the appropriate committees for follow-up and report either to the Board of Trustees, or to the House of Delegates, depending upon the intent of the specific request. The Executive Administrator will be held responsible to assure that staff members assigned to the committees will provide the appropriate administrative follow-up activities.

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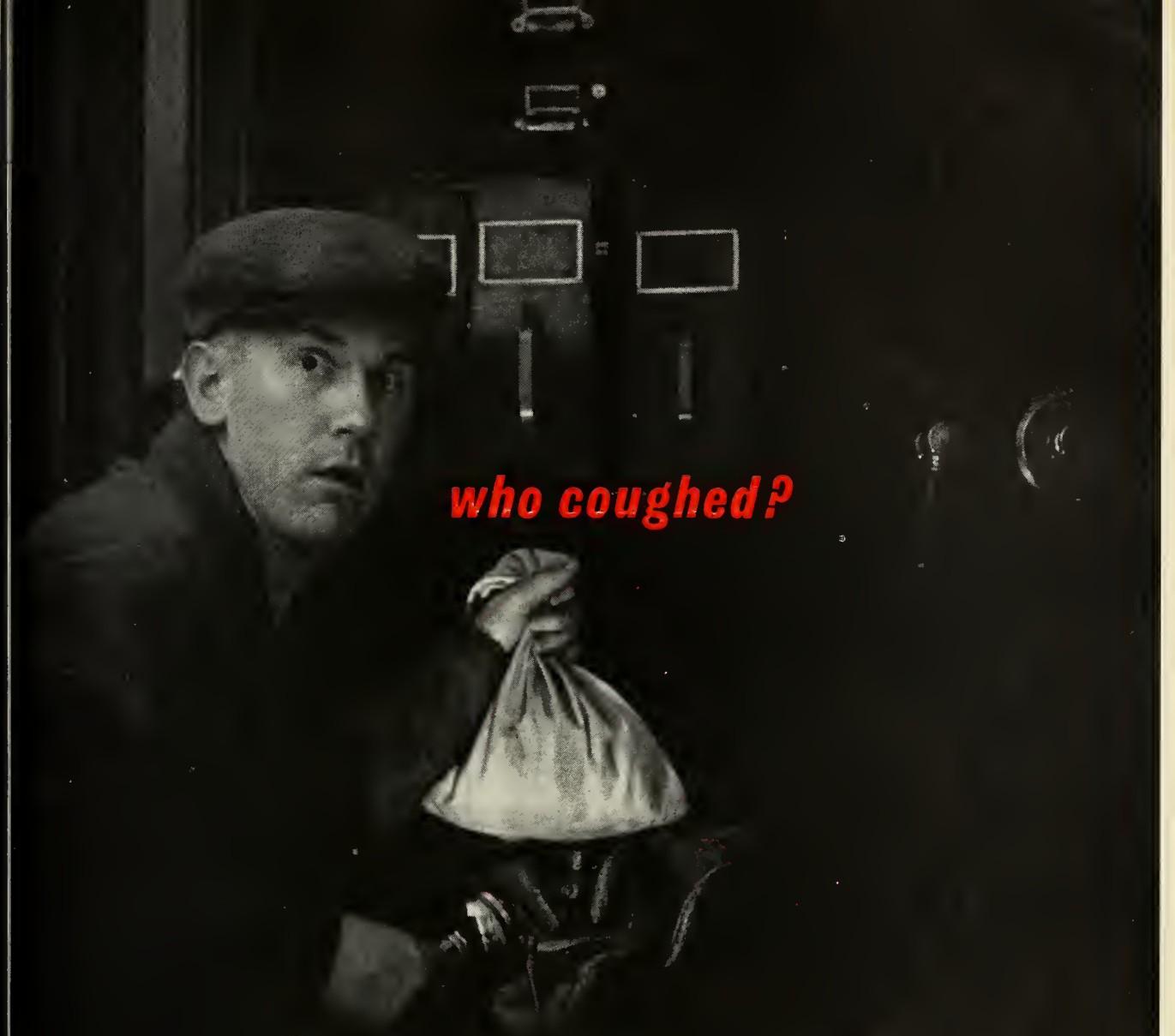
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REFERENCES: 1. Siegler, P. E., in Nodine, J. H., and Moyer, J. H. (Editors): *Psychosomatic Medicine*, The First Hahnemann Symposium, Lea & Febiger, Philadelphia, 1962, p. 582. 2. Lapolla, A.: Western Med. 2:383 (Sept.) 1961. 3. Yoss, R. E., and Daly, D. D.: Pediatrics 25:1025 (June) 1960.

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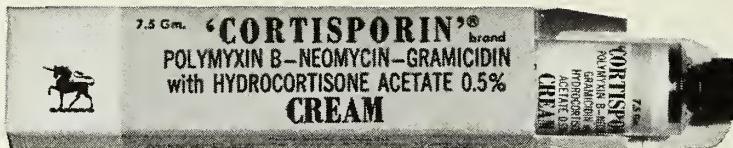
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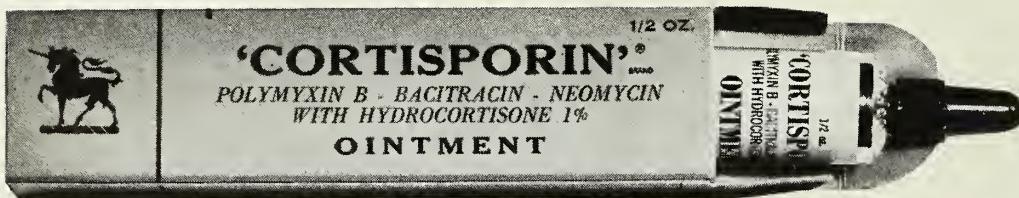
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This is why there is nothing “new” about Thorazine (chlorpromazine, SK&F). This is why it remains the first choice in many conditions—and the standard against which other agents are inevitably compared.

This is why it is one of the fundamental drugs in medicine.

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AS I SEE IT FROM '360'

By ROBERT L. RICHARDS
Executive Administrator

Continuance of IMT Program Investment In Future Savings

The Impartial Medical Testimony Program in Illinois continues to grow in stature and effectiveness. The program which provides an expert medical opinion to the courts, was instituted by the IMT committee of the Illinois State Medical Society on a state-wide, two year trial period in 1961 at the request of the Supreme Court of the State of Illinois.

The growth of IMT during these two years can be illustrated by its use in Cook County Courts:

Number of cases referred to IMT (As of August 6, 1963)		
1961		3
1962		8
1963		9
Total		20
Present status of these cases		
Pending		9
Terminated		11
Request for exam		
By Plaintiff		6
By Defendant		13
Both		1
No. of judges signing orders for IMT		
1 Judge		7 cases
1 Judge		4 cases
1 Judge		2 cases
7 Judges		1 case each
Specialists required by 20 cases		
Orthopedic Surgeon		10 cases
Neurosurgeon		7
Otolaryngologist		2
Gynecologist		1
Ophthalmologist		1
Radiologist		1
Plastic Surgeon		1
Total		23*

*3 cases required 2 specialists

The IMT Committee's sponsorship of the program includes supervision of the panel of experts, providing liaison with the courts and carrying on a program of education for physicians and the public. Foundations supporting the program through grants include: the Ford Foundation; Wieboldt Foundation of Chicago; The John Deere Foundation; the Woods Charitable Trust and the Lilly Endowment, Inc. Fund.

The need for a program of this type was emphasized to a member of the staff recently while she was serving two weeks of jury duty in Chicago's circuit and superior courts. The average age of the personal injury cases heard was 7 years old. In one case 7 medical witnesses testified—3 supporting the plaintiff and 4 for the defense. The staff member (who was excused from the case because of her place of employment) heard a member of the jury remark, "It was like going to medical school but when it was over, because of conflicting statements, we still didn't understand any more about the nature or permanency of the injuries."

A two year extension of the pilot program is being sought with the hope that the court administrator will include in his 1965 request to the legislature sufficient funds to carry this program without need for Foundation grants.

It has been estimated that each time a personal injury case is settled without going to trial Illinois taxpayers save \$3,000 to \$3,750. A two-year investment may be the method of saving untold thousands in the future.

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Human Experimentation, Evaluation of Drugs

Proceedings of the Symposium

Sponsored by the Catholic Physician's Guild of Chicago

SPEAKERS:

"Aspects of Development of New Drugs"

Theodore Klumpp, M.D., New York

Member, National Commission on Drug Safety;

Chairman, President's Committee on Health Resources;

President, Winthrop Laboratories

"Clinical Evaluation of Drugs"

R. K. Richards, M.D., Chicago

Professor of Pharmacology,

Northwestern University School of Medicine

"Moral Aspects of Human Experimentation"

Rev. Thomas O'Donnell, LL.D.

Professor Moral Theology of Georgetown University Medical School

Woodstock College, Woodstock, Maryland

Author: "Morals in Medicine"



May 2, 1963

Palmer House

Chicago, Illinois

Part 1. Dr. Richard's and Father O'Donnell's papers will appear in succeeding issues.

Our subject is a most provocative one. There has been a great deal of heat and hysteria generated through the sensationalism of the Thalidomide story. The hysteria has pervaded the public, the government and even the medical profession. The panel is here to answer two big questions: what are the facts, and what is the record?

To introduce the problem, I will take the privilege of a moderator and make some remarks of a philosophical nature.

Over the doorway to the medical school of the University of Naples there is a quotation from St. Thomas Aquinas which says in translation: "Observation and reason."

Interpretation of this leads us to consider that there are two types of knowledge, that derived from observation of natural phenomenon or empirical knowledge and the experimental type of knowledge derived from reason. But, what is experimentation?

We can define this by simply saying that it is testing nature, putting a question to nature and seeking a response and an answer. When we come to the problem of the human experimentation, we are simply placing against the human subject a test situation and looking for the subject's response.

This gives us, let us say, technical or scientific knowledge as opposed to, perhaps, empirical knowledge.

In human experimentation, and specifically with regard to drug evaluation, there are several comments. We must understand, that drugs that are now used to treat people are drugs which at some time in their development had to be used in a patient, in an individual, in a human being, for the first time. Ultimately, every new drug that is going to benefit mankind must be tested out in man.

Man is, indeed, the final experimental animal. It is a curious thing that there has been a great deal of heat generated as to whether or not and under what circumstances we can test out a drug on animals; yet only in recent years has anyone ever considered the fact that we must use man himself as an experimental animal.

To introduce the first aspect of human experimentation, namely the development of new drugs, I have a number of questions that will lead into Dr. Klumpp's presentation. At the present time, we have a large number of drugs; precisely we have about 150,000 medicaments available to the medical profession, and just thirty years ago, ninety per cent of these drugs did not exist. The largest proportion of these have been introduced within recent decades. More drugs are being produced and require screening. This raises several questions. For example, what are the therapeutic methods of the practicing physician? Consider the problem of routine prescribing versus rationale prescribing of drugs. Are we taking advantage of all of the potentials of different drugs now available?

Next, the problems of testing in the laboratory are now complex. There is a dearth of laboratory animals. The securing of animals is associated with misdirected sentiment. Rigid laws have been enacted regarding procurement and care of animals. Are these reasonable? Are they not hampering medical research?

Thus, many influences that are legal, governmental and extra legal have their impact on scientists. The question is: Are we being hampered? Is progress being hampered?

VINCENT COLLINS, M.D., MODERATOR
Department of Anesthesiology, Cook County Hospital
Associate Professor of Surgery (Anesthesiology)
Northwestern University School of Medicine

Aspects of Development of New Drugs

THEODORE KLUMPP, M.D., *New York*

It was one day last week, by coincidence, the very time that I was trying to get together the ideas for this talk, when three problems came to me, each normal in its own way, each one a different problem, unrelated seemingly, but having very definitely something in common.

I received a call in the morning from a New York physician, a recognized authority in the treatment of myasthenia gravis. He had a patient who was helped by a particular drug which we manufacture, but we market it only in a 10 mg. dosage. He asked me if we couldn't manufacture the drug in a 1 mg. unit tablet because his particular patient could not tolerate 10 mg., and the need was great.

He said this patient's well-being is dependent on taking this drug. Well, I considered what to say, and I said, "I am sorry. We can't give you a 1 mg. tablet unless we file an investigational drug application with the Food and Drug Administration, and unless you register as a qualified clinician by means of a fifteen-page form. I am sorry. We just can't give you a 1 mg. dosage. This is in keeping with the new regulations."

The second was a visit to my office from our Director of Clinical Research. He had just returned from Washington, where he had an appointment to visit a physician in the Food and Drug Administration, who was the project officer on a drug for which we had filed a new drug application. This, we considered to be a very important drug, an anti-bacterial agent particularly active against organisms for which available antibiotics and sulfa drugs were not effective. The application numbering about 3000 pages including all the data that were required to file; including data on the fate of two generations of laboratory animals exposed to heavy doses of the drug during pregnancy. It included everything that we felt was necessary to be a part of our preliminary laboratory and clinical experimental work.

That application had been filed on January 29, and the visit was just a few days ago. The project officer of the Food and Drug Administration told us that he hadn't had a chance to look at that application. Three months had gone by. The law prescribed a period of six months, and this concerned us.

The third incident that morning, was a report from our research laboratories on progress made in formulations under study. One of the products that was then being investigated clinically, was a mixture containing a new antitussive compound, one that we think is better than Romilar®.

One of the clinicians studying this particular product had suggested a change from one well-recognized excipient, to another commonly used excipient for the purpose of improving the effectiveness of this particular mixture. Should we make the change? I had to tell our research people that we couldn't do it. Our plan of investigation, as presubmitted to the Food and Drug Administration, would have to be changed, all other investigators notified and supplied with the re-formulated material, and a complete new set of investigational plans given to each of the clinical investigators testing the product. Experience to date with the article would be largely, if not entirely, rejected, and we would be set back as much as one year in introducing this particular drug.

To be considered also in our decision was the added cost of the study, but more important, the fact that the valuable time of the clinicians who had already clinically studied the first formulation would have been wasted, and here, in a small way, we came head-on, into a regulation that does actually hamper progress. It makes it much more difficult for us to make progress.

Well, these three experiences had one thing in common. Each is the result of regulations that were hurriedly drafted last year, as a re-

sult of the Thalidomide scare; but let's go back for about three years.

The Senate Anti-trust Committee had been fishing in pharmaceutical waters before Thalidomide ever became a scare headline. What started out as an investigation to curb drug vices, reduce profits, and reduce patent protection, turned to something else.

Conservative legislators had rewritten the original Kefauver Bill, to insure a continuity of progress and development in pharmaceutical research. Then through a most extraordinary coincidence of timing, when the Bill reached the floor of the Senate, the newspaper storm over the three-month-old Thalidomide story broke in all its fury. New provisions were quickly added to the Bill, ostensibly to meet a threat, which, in fact, as far as this country was concerned, had already been successfully dealt with. The main provision of the new drug law, which, as you know, is an extension of the Food, Drug, and Cosmetic Act of 1938, is a requirement that a new drug be proved not only safe, but also effective by "substantial evidence."

It has not been generally understood, however, that in considering the safety of a new drug under the old law, the Food and Drug Administration took into account the effectiveness of drugs. For example, a new drug might be considered safe in the treatment of a fatal form of cancer, even though the toxic effects of the drug might be severe, and even though that drug might sometimes be lethal.

A similar degree of toxicity would not have been condoned if the same drug were offered for the treatment of some mild disorder such as, to use an extreme contrast, indigestion, hyperacidity, or acne or something like that.

Commissioner Lerrick, in his testimony before Congressional Committees, left no doubt about this point, and as a matter of fact, one of our own new drug applications under the Old Law was turned down because we had not proved effectiveness, in the opinion of the Food and Drug Administration, although the drug was conceded to be entirely harmless. So that, actually, this particular provision on effectiveness, while it tightens and strengthens what was in existence before, is not quite as new as it was generally considered to be.

Would this new provision have prevented Thalidomide from being marketed? Thalido-

mide had already been shown safe, and effective as a sedative in all cases except early pregnancy, and as you may know, Thalidomide was returned onto the market in Britain through the request of the medical profession; and again, withdrawn from the market.

About the only regulation bearing on the Thalidomide problem is one which gives the Food and Drug Administration explicit authority to monitor and control the clinical testing of experimental drugs, including the required reporting of all clinical experience as that experience emerges.

This power to monitor the experimental use of drugs, had actually been implicit in the 1938 law, but regulations utilizing this authority to include supervision over clinical testing of new drugs were not enacted until after the Thalidomide incident. It should be emphasized that these regulations were adopted before the new law had been enacted.

It is perhaps relevant to mention here that the Pharmaceutical Manufacturers Association was in complete agreement with the principle that the government should exercise this supervision over the clinical study of new drugs. It did, however, express strong reservations, principally concerning certain details considered to be impractical. It expressed reservations concerning the excessive amount of paper work called for, and the unnecessary intrusion, in our opinion, of the government into the confidential physician-patient relationship.

A pharmaceutical company must now notify the FDA of each new compound that it proposes to test. Such notification must contain complete data on the drug's composition, sources, manufacturing details and quality control assay procedures. We are required to file complete data and evidence from preclinical and animal tests to prove reasonable safety, including the name and qualifications of the pre-clinical investigators. We must file a detailed flight plan of the purpose of the program we intend to pursue for the clinical testing of the drug by phases, and the names and qualifications of all investigators with certification that they are suitable experts. The question of who is a "suitable expert" remains open to be decided on a case-by-case basis, as I believe it should be.

Proposals have been made that one private

organization or another should undertake the role of certifying experts as qualified to evaluate the safety and effectiveness of new drugs. In my opinion, such proposals have not taken into account all of the implications of such a censorship role. In the first place, the government cannot delegate such authority to any private group. Furthermore, there is no common denominator of education or training that distinguishes a careful, reliable, accurate observer from one who is motivated by the will to believe or sometimes, not to believe. Let us not forget that Charles Best was a medical student when he did his Nobel Prize Winning work on Insulin, and Beaumont an undistinguished Army surgeon when he made his epochal observations on gastric physiology, utilizing only one patient and without any special clinical facilities.

An unknown house officer in the London County Council Hospital, Dr. Mary Walker, attended a clinical lecture on the physical appearance of the typical myasthenia gravis patient. The lecturer compared this debilitating disease with the appearance of a victim of curare poisoning in the jungles of the Amazon. Dr. Walker went to the library and looked up the antidote to curare—and found it to be physostigmine. She used the intuition the Good Lord has given to the fair sex, and injected physostigmine into a moribund myasthenia gravis patient. From this happy inspiration came three of the drugs, commonly used today, to provide relief from this incurable disease; Neostigmine,[®] Mestinon,[®] and Winthrop's own Mytelase.[®]

A better-known example, of course, is William Withering's discovery of, and experimentation with, the effect of Foxglove leaves on patients with dropsy. Would we have digitalis today if this country practitioner had needed governmental clearance for his work as a "qualified investigator"?

Let us not forget that Jenner's vaccination for Smallpox, Semmelweis' contribution to the prevention of puerperal fever, Findlay's work with yellow fever, the role of codliver oil in rickets, Pasteur's anthrax vaccine, and Lister's theory of antisepsis were all rejected by the authoritarian bodies of their time. As members of similar scientific groups today, let us not make the same mistake and outlaw investiga-

tors because they are not members of the fraternity, or because they do not have the privilege of the luxurious institutional facilities and laboratories placed at the disposal of some of us fortunate ones. When released, our drugs will often be used by general practitioners, and the supplementary experience of good observers among this group can have an important bearing on safety and effectiveness under the very conditions under which the drugs will be used, that is, general use.

Under the regulations that have been adopted, investigators will have to supply us with full data on their training, qualifications, and facilities. This is fine. They will have to maintain adequate records and case histories, send us periodic reports, and they will have to certify that they have obtained the consent of their patients before administering the drug, except where, in the investigator's judgment, this is not in the best interest of the patient.

In each so-called phase, and our clinical investigation is now rapidly coming to be divided into phases, we will have to submit progress reports to the FDA at intervals not exceeding a year. We must notify the FDA of any changes in the originally substituted investigational flight plan, as well as any unexpected or alarming side effects, or for that matter, any decision to discontinue our studies, submitting detailed reasons for our decision.

The FDA has authority to step in at any time to review our program, examine our records, and those of the clinicians conducting tests for us, and to order a halt in trials if they are deemed not to be in accordance with the submitted plan, or with other regulations.

For each of the two to three thousand experimental drugs tested each year, preclinically and clinically, these new regulations will compile what we think will be a monument of paper in Washington. Let us give you two examples from our own experience.

The application I mentioned earlier, covering a urinary anti-infective agent, comprised over 3000 individual documents, contained in twenty-one folders, packed in four cartons, which weighed enough to cost \$43.92 in parcel post from New York to Washington.

And I might say, parenthetically, that I went through this experience of reviewing new drug applications. My experience was that it was a

losing battle, that each day that I came into the office, instead of gaining ground, the jackets on my desk got higher and higher, and I was simply distraught. I couldn't gain on this volume of paper work that lay on my desk for me to look at, and that was in the good old days when life was simple and we didn't have extensive records.

A previously-filed NDA, covering a radio-paque agent, comprised some 4000 separate reports contained in 33 folders, and the postage for this submission from New York to Washington was \$101.50.

In addition to this massive amount of data, we will have to continue supplementing the file with newly received clinical reports from trials which are still running. Also, for those compounds for which we have filed our intention to pretest clinically, we must send a steady stream of paper to Washington reporting the early quirks and turns of new compounds.

It is both curious and ironic to speculate on the dollar cost involved for the manufacturer, and the government, covering this additional work and material, and it becomes a little bit ironic when we remember that the whole thing started with the intention of lowering the price and cost of manufacturing drugs. The cost in terms of human suffering not relieved, diseases not treated through drugs not available—all brought about through delays built into the new regulation, are incalculable.

Since this symposium is primarily concerned with human experimentation, let me review very briefly at this point the steps that the pharmaceutical company generally takes prior to the stage of applying for FDA consent to a drug release. It is a process which has been estimated to take about five years.

We begin, of course, with the original synthesis and in vitro examination of a compound in the laboratory. In a typical recent year it is estimated that the industry studies more than 100,000 such chemical entities and combinations. As part of initial consideration, more and more automation and electronic equipment is coming in an effort to obtain objective chemical tests which will, in a sense, give us some lead and some indication of what we should do in animal testing. But finally, in the last analysis, tests on laboratory animals are necessary to determine which of these compounds shows

any evidence of biological activity.

And, may I say, the problem of obtaining enough animals is a growing concern to us. One of the things that recently took a bit of my time was the fact that the airlines had decided that the monkeys that we are importing should ride first class.

We decided, since we have a rule in our company that human beings travel tourist, wherever it is available we thought that our laboratory animals who, in a sense are employees too, ought to do the same.

When we find that a compound manifests in one or more species of animal, some biological activity, then that compound is carried further, first to determine whether it produces any desirable pharmacological effect in laboratory animals, and secondly and at the same time, the two of them running parallel, the degree of toxicity of the pharmacologically effective dose.

If the drug is thought to be useful in chronic conditions, long-term tests are then at once started with animals to determine possible cumulative toxicity and other effects that might ensue with long-term administration.

Then with our very deep concern about birth defects, successive generations of animals are also studied at this stage, to observe any possible hazards to the embryo. At this point, the chronic toxicity tests, having been carried along, the birth defect tests having been completed, (and they are far from being good and reliable tests at the present time) then we come to a decision as to whether or not the compound *merits testing on humans*, and whether or not *it is safe enough to do so*. If the answer is yes, to both of these questions, we must now file our first documentation with the Food and Drug Administration, and in the average year only some two to three thousand compounds out of the 100,000 synthesized initially survive this stage of development.

Clinical pharmacologists repeat essentially the same process with humans as their laboratory colleagues have completed with animals. Small groups of human volunteers cautiously are given increasing amounts of the compound to determine its possible toxicity, and if it is found to be safe in those small groups, others are tested to determine the pharmacological effect.

I should emphasize that the first administra-

tion of a drug to human beings is undertaken with the greatest care to only a few volunteers, and under the most expert supervision we can command.

In practice, our own scientists usually insist on taking the drug themselves before turning it loose to collaborating clinical pharmacologists, the theory being that they wouldn't ask someone else to administer a drug that they weren't willing to take themselves.

Now we have had a deep philosophical argument about this in our own shop, and I know the same argument has been going on in other concerns, as to whether this is a practice that we should permit to continue.

Should the compound pass these first precarious trials, it can now be administered clinically to gradually increasing numbers of patients, first under carefully selected, strictly controlled clinical conditions, and eventually to more scattered groups of patients for trial by selected physicians.

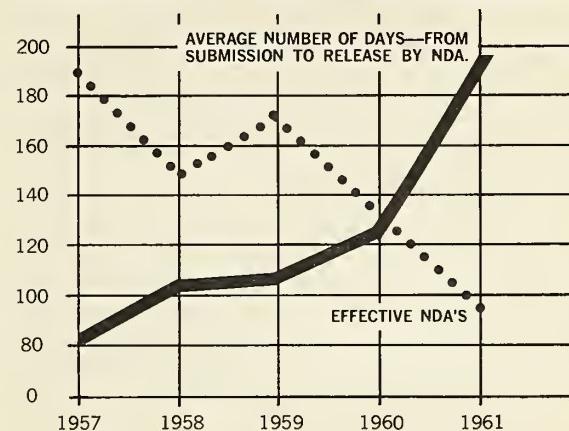
It is only through such large-scale trials that unsuspected side effects and aberrations can be brought out, and it is in these trials that true clinical usefulness of the drug can be established.

At this point, when sufficient evidence has been gathered, we must decide whether or not to file our new drug application with the FDA. Of the two or three thousand compounds that were first brought to the stage of clinical investigation, after we have gone through this next step, we find from the industry generally that there are only some thirty or forty new compounds a year; that survive from the 100,000-plus which were initially screened.

Up to this point, I have discussed primarily the content and significance of new FDA regulations and have tried to give you a brief review of the procedures which these regulations will effect.

But what impact will the regulations have on this process, and more importantly, on the availability to the practicing physician of new and better drugs? Much of the answer to this question still is in the realm of speculation. We can feel the impact of the new law, and I hope I made it clear that the regulations on experimental drugs came before the new law was enacted. We have yet to learn how these will ultimately effect the future, but there are a few

FIVE YEAR STUDY OF NDA'S
COMPARISON OF NUMBER AND GESTATION PERIOD



statistics available, and if you will bear with me, we might try to analyze what discernible trends are now becoming manifest.

In five years from 1957 through 1961, the government released a total of 737 new drugs. We normally refer to these as "effective new drug applications," and consider them as tantamount to a license to market the product, since it is a license, and since it can be withdrawn any time by the Food and Drug Administration.

Fig. 1 illustrates a five-year study of new drug applications and their history.

In 1957, there were 187 new drug applications passed. The next year, 153. A peak was reached in 1959, of 172. Then a drop to 127 in 1960 and only 98 in 1961. We don't have figures for 1962, but it is very clear that there were fewer in 1962.

In relation to the number of new drugs that have come through the Food and Drug Administration, let's keep in mind that the whole effort of Senator Kefauver started in 1959 when the number of new drug applications reached a peak. Since then they dropped off very fast. During the same period of years, we might examine the average number of days it took from the submission of a new drug application until its release.

In 1957, the average time it took to review new drug applications was 83 days. It went up to 102, then to 106, and then to 136 and in 1961, to 191 days.

May I say that I hold no brief as to whether this is good or bad, whether more time should

be taken or not. There is no question about one basic fact, and that is that the Food and Drug Administration, if it operates efficiently, should have all the time it needs to consider a new drug application. It does us no good, it does the public no good, to have a wrong decision come out on the review of a new drug application; but the implications of this whole situation are evident from this slide.

Dr. Frances Kelsey released some figures the other day which also have a bearing on the increasing delays that we feel we must come to live with. Since the new regulations now demand filing of data on drugs in clinical investigation, and since the filing must now be retroactive for such drugs, Dr. Kelsey has stated that she has 2,400 dossiers on hand with a further 4000 likely to arrive in her office before the end of 1963.

It has been estimated that the Food and Drug Administration will have filed per year beginning in 1963, some 500,000 reports of various kinds.

One question is obvious then in view of one point I have tried to make. Is the FDA so staffed and equipped as to be able to deal with the literal paper tiger it is siring? According to the recent report of the Citizens' Advisory Committee appointed by the Secretary of Health, Education and Welfare, the answer is, No.

In recent years, may I also point out, it has become fashion for regulatory agencies to require an ever-increasing volume of reports and answers to questionnaires from those subject to these regulatory agencies' authority. The old-fashioned procedure was to suspect a violation of the law on the basis of information and belief, and go after it, leaving others undisturbed and in peace. Today's technique is to require everyone to furnish voluminous operational reports, or to subpoena the records and documents of an individual, a company, or even of an entire industry in the hope that somewhere in this material there will be found some self-incriminating evidence of the violation of the law.

No one knows whether or not all this information is read, or just filed away; and it is hard for me to see what restraints there are to prevent an agency from creating an ever-increasing mountain of useless paper work and screaming to the Congress for increasing funds to handle it.

During the World War II, my company was obliged to fill out an exceedingly long and time-consuming questionnaire. It was the biography of our company. A few months later, we were again asked for essentially the same information. When we protested and told them, "Well look, we just gave you all this information," we were blandly told that the original questionnaire had been shipped to a warehouse in St. Louis, and that it was easier to ask for the information again, than to try to dig it out of the warehouse.

The second Hoover Commission had a task force on paper work, which showed then that the Federal Government was spending \$4 billion a year on just plain paper work. Each year, it showed government bureaucrats write more than one billion letters—more than one billion letters—which cost the taxpayer, and I ask you just in your own minds to guess how much each letter costs. The facts then showed that each letter cost you taxpayers \$1. On all sides, inside and outside of the government, it is recognized that excessive paper work is the curse of big government, and the situation continues to grow worse rather than better. In this field, it is my earnest hope that the Food and Drug Administration will exercise the greatest restraint in calling for reports, carefully weighing the purpose they will serve against the time and effort called for on the part of industry and clinical investigators as well as and perhaps more importantly, the manpower resources available to gain a maximum of useful information from these reports.

We are beginning to see some indication, some glimmers, of what is going on, and it gives us some cause for concern.

You asked me what our problems were in bringing forth new drugs. We see now that the FDA is employing the new drug section of the law which is only one small section, as a censorship device whereby every change however minute and insignificant in the composition, labelling and claims made for a new drug on the market must have prior approval and clearance. Anyone who has had dealings with any branch of the government knows that this matter of prior approval spells delay.

We wrote a letter to the Food and Drug Administration in May 1962 on a most important matter. We haven't had an answer to it yet.

At the same time, any change whatsoever in an old drug, any slight change in claim, labelling, composition, will convert the status of that old drug into a new drug, and this touches off all the rigamarole of the new drug applications, and all the delays inherent in this.

In my opinion, the FDA goes too far in this respect. It creates for itself an enormous chore of unnecessary red tape, and it discourages and delays change.

The essence of progress is change.

I think it is impossible for the FDA to make the myriad of small day-by-day decisions that are inherent in the research and marketing activities of each member of a complex—and I hope progressive—industry. We should be permitted to assume the responsibility of making most of the decisions in this area, and if companies make mistakes, there is effective authority in the rest of the law to correct them promptly by warning seizure, criminal charges, and even injunction action.

I have, as I have indicated, serious doubts that the medical and technical staff of the FDA is sufficient qualitatively and quantitatively, to take on the enormous load they are cutting out for themselves.

They have hired new men—at last count, twenty new medical officers—but I know, from my experience, it will take a long time, perhaps years, to train these men to make the necessary decisions in this difficult area.

As my good friend and tough competitor, Jack Connor, head of Merck & Co., put it, "It would be a senseless tragedy if this nation forfeited its leadership in drug progress, not for lack of discoveries, but because a regulatory agency could not keep pace."

Well now, at the same time, and in closing, let me say that the medical officers of the FDA are confronted with a grave dilemma, and they have my deepest sympathy.

They have the responsibility of approving new drugs as safe, and yet they know as well as you and I know, that only after years of widespread use can one be certain that a new drug, like a new airplane or a new submarine, is safe.

As one governmental officer of Food and Drug Administration put it, "when a medical officer of the Food and Drug Administration receives a gold medal from the President for not approving a new drug, when they are confronted with the possibility of Congressional hearings, condemnation by newspaper and grand jury proceedings if a drug turns out to be toxic, any medical officer who releases a new drug ought to have his head examined."

This may be an extreme statement, but in it is reflected the nature of the dilemma, and it is real.

There can be little doubt that the drug amendments of 1962 were passed to protect you and the public from harmful drugs. I am afraid, however, that the Congress and the public expect more than this or any law can deliver, and as I have said before, as long as we have drugs, as long as we have airplanes and even bicycles, we will have accidents and the development of flaws that only time and wide-spread use will uncover.

There is a hazard in everything we do. It is right that we should take all reasonable steps to minimize these hazards; but, in the field of drugs, trying to look at it objectively, I think we are entering an era in which we are excessively preoccupied with safety. The pendulum has been given a hysterical push. It can seriously interfere with the more important objectives of providing the tools to alleviate the ills that still afflict mankind. If we fail in this endeavor, we can lose more than we gain; and, as Alfred North Whitehead so wisely said, "Panic of error is the death of progress."

Primary Myxofibrosarcoma of the Heart With Occlusion of the Bifurcation of the Aorta

GILBERT D. FISH, JR., M.D.,* WILLIAM H. ISHAM, M.D.,* VINCENT L. FREDERICK,
M.D.* and FRANCIS C. TUCKER, M.D.,** *Freeport*

Although primary tumors of the heart are very rare, there are still several hundred cases, both benign and malignant, reported in the literature. One of the interesting features of these tumors is the great variation in clinical symptomatology that they represent. The symptoms depend, of course, primarily on the size and position of the tumor and in which chamber of the heart it originates. As pointed out by Scannell,¹ the majority are intra-cardiac myxomas, and they are usually pedunculated. They may frequently cause ball-valve obstruction of the mitral valve and thus present a clinical picture difficult to distinguish from mitral stenosis.

Much less frequently, attention is directed to some other part of the body by symptoms caused by tumor emboli. Coulter² reported a case of cerebral metastases from a silent cardiac sarcoma. Young³ and Brewin⁴ reported cases manifested by abdominal aortic occlusions.

This paper is a presentation of two cases of primary myxofibrosarcoma of the heart, one of which was initially operated as an emergency for occlusive aortic disease.

Case I

This 54 year old white male was admitted to the hospital complaining of severe pain in the right lower extremity. The pain had begun rather gradually approximately two weeks before, and had become more severe about three days before admission. It had only become very severe on the day of admission. He also complained that his entire leg had rather suddenly

become quite cold and he could not bear his weight on it. The past history was essentially unremarkable. He had had a previous appendectomy, and had also been treated for gouty arthritis but otherwise enjoyed good health doing hard work as a farmer.

The pertinent physical findings were limited to the right lower extremity. This was cold, mottled, slightly swollen, and no femoral pulse could be palpated. The left femoral pulse was felt to be normal. The heart was not enlarged, the rate was regular, and there were no murmurs. The blood pressure was 130/80. The remainder of the physical examination was normal except for a well healed appendectomy scar.

The laboratory studies including a complete blood count, urinalysis, chest x-ray and electrocardiogram,

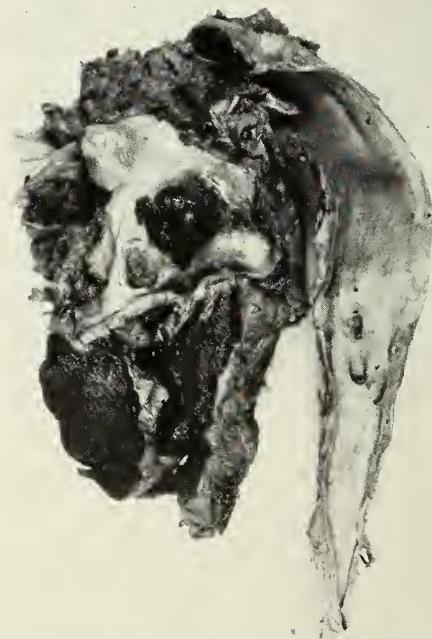


FIGURE 1: Myxofibrosarcoma of the Heart, Primary in Left Atrium (Case 1).

*Freeport Clinic, Freeport, Illinois.

**Freeport Memorial Hospital, Freeport, Illinois.



FIGURE 2: Myxofibrosarcoma of Heart, Primary in Right Atrium (Case 2).

were all within normal limits.

On the day of admission, he was explored for obstruction of the right femoral artery. No obstruction was found at this level, and accordingly an abdominal incision was made which revealed obstruction at the bifurcation of the aorta, the block being complete in the right and incomplete in the left common iliac artery. An endarterectomy was carried out, and the material removed seemed to be atherosclerotic in nature, but with a peculiar jelly-like or mucoid inner consistency. The large plaque which extended into both common iliac arteries appeared to be quite completely removed, and post-operatively the patient had full return of his peripheral circulation and relief of pain.

Five days later the patient complained of increasing pain in the right thigh and shortly thereafter, of pain in his right leg and buttocks. He then developed a tender nodule in the soft tissue of his thigh, and this was quickly followed by a number of other nodules involving the entire right lower extremity and right buttocks. One of these nodules was biopsied and reported as embryonal alveolar rhabdomyosarcoma. The material removed by endarterectomy was then reviewed, and similar tissue noted in this specimen. The pathologist then revised his opinion and considered the tumor to probably be an endothelial fibrosarcoma.

The patient then had a progressively downhill course with the development of many intra-muscular nodules in the right lower extremity and buttocks, and these were extremely painful. Inquiries were made as to whether some type of regional perfusion of the right lower extremity might be useful in ameliorating his symptoms, but we were given no encouragement along these lines. X-Ray therapy was then employed, and although it had no effect on the progress of the disease, his pain was greatly relieved. During the later stages of his illness, he complained of episodes of faintness on certain changes of position. We attributed these episodes to his general weakness, being unaware that syncope is frequently seen in intra-cardiac tumors. The patient continued his downhill course to die



FIGURE 3: Myxofibrosarcoma of Heart.

rather suddenly of terminal congestive heart failure approximately two months after admission.

Pathologic Findings

The heart was only slightly enlarged, weighing 425 grams. When the various chambers were opened, they all appeared to be filled with tumor-like and clot-like tissue. Attached to the left atrial wall in the region of the appendage, was a large grey-pink tumor which was directly continuous with a clot and tissue extending into the ventricle and into the aorta. There was a similar hemorrhagic tumor mass attached to the right atrium in the region of the right auricular appendage, and this was directly continuous with tissue extending into the right ventricle and then into the pulmonary arteries. This tumor was attached to the atrium by a slender stalk five mm. in diameter.

Although much of the tumor mass within the heart revealed fairly normal appearing blood clot on microscopic examination, tissue in the two atria showed spindle-shaped cells varying considerably in size and staining properties and gave the appearance of endocardial fibrosarcoma. These same atypical cells were found in metastatic areas in the abdominal wall, the retro-peritoneal area, the aorta and bifurcation, and in the lungs. The lesions in the lungs, incidentally, were so small that they would not have been expected to be seen by chest x-ray.

Case II

A 48 year old white male entered the hospital with the chief complaint of "a lump in the throat" and "pain in the chest" of two months' duration. For two weeks prior to admission, he felt very weak and noted that he was becoming pale. On the day of admission he fainted, and was therefore admitted for evaluation.

Physical examination revealed a patient appearing pale and dyspneic. When recumbent, his face and ears became cyanotic. He appeared to be in early shock, the pulse was weak, the rate 92, and the blood pressure 70/55. The heart sounds were distant, but normal, and there was no apparent cardiac enlargement. Palpation of the abdomen revealed the liver to be

enlarged and tender. There was also questionable splenomegaly.

Laboratory studies revealed a normal complete blood count and urinalysis. The abnormal findings included a bromsulfalein test with 77% retention in five minutes, and 27.4% retention in 30 minutes. The cephalin flocculation test was three plus in 48 hours. The prothrombin time was slightly prolonged. The electrocardiogram at first suggested an anterior wall infarction, but kept changing to later suggest a posterior wall infarction. Initial chest x-ray showed a large calcified left hilar lymph node and moderate enlargement of the left ventricle.

Shortly after admission, his blood pressure rose to 112/70. After a week of bed rest, his liver was larger than on admission and was still tender. Chest x-ray approximately ten days after admission showed a cardiac contour suggestive of pericardial effusion, as well as minimal bilateral effusion. The following day, 150 cc. of bloody fluid was aspirated from the pericardial sac. Two days later a pericardial friction rub developed which persisted. He also began to cough up small amounts of blood-tinged sputum. About three and one half weeks after admission, he was found in his room unable to speak and apparently unable to move either right extremity. The right pupil was dilated as compared to the left. During the course of the next two weeks, he developed cyanosis and edema of both arms and an increase in the bloody fluid in the left chest. He died approximately six weeks after admission.

Pathologic Findings

The heart weighed 1160 grams and a large amount of pseudo-myxomatous tissue was noted on the epicardial surface of the heart. A large thrombus-like tumor was seen in the left ventricle and this had perforated into the pericardial sac. Microscopically, the tumor was seen to consist of spindle-shaped cells which varied in size and shape and showed invasion into the wall of the auricle. These were similar to the cells seen in case one, and suggested the diagnosis of myxofibrosarcoma. Additional findings were recent infarcts of the right lung and left cerebral hemisphere, but there was no evidence of spread of tumor to these or other areas.

Discussion

These two cases are presented because of the relative rarity of primary heart tumors, the great variability of clinical symptoms which may be manifested, and because some of these primary heart tumors may be amenable to surgery if the diagnosis can be established.

In case one, our attention was directed away from the heart by a number of factors.

The tumor was not noted on the initial examination of the specimen obtained by endarterectomy, although the mucinous stringy nature of the material was commented on at this time. When the malignant nature of the lesion was noted on examination of one of the peripheral metastases, slides were sent elsewhere with the suggestion that the tissue resembled a primary fibrosarcoma of the heart. One authority replied that he had never seen any heart tumors that looked like this. Furthermore, the distribution of metastases which corresponded to that of the right common iliac artery, led us to consider the possibility of a lesion arising primarily in that vessel. Finally, the patient never had any symptoms or signs to direct our attention to the heart with the exception of his syncope, and this we were not alert enough to interpret correctly.

Case two is presented because it represents the same type of tumor microscopically, but with completely different clinical features. Attention was directed to the heart in this case, but the primary considerations were myocardial infarction or dissecting aneurysm.

Summary

1. Two cases of primary myxofibrosarcoma of the heart are presented.
2. The presenting symptomatology of cardiac tumors may be very variable as exemplified by these two cases.
3. A stringy mucinous peripheral thrombus may lead one to suspect the possibility of a primary myxomatous tumor elsewhere.
4. Syncope on changes of the patient's position or posture, is a fairly common finding in intra-cardiac tumors, and was present in both of these cases.

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Posthemorrhagic Anemia of the Newborn

HOWARD S. TRAISMAN, M.D., Chicago

The newborn infant who is pale and flaccid is an emergency patient who requires prompt attention. Severe posthemorrhagic anemia of the newborn is a condition that may be overlooked, and may result in sudden death. While prematurity and asphyxia are also important problems at birth, the immediate diagnosis and treatment of posthemorrhagic shock has received much less emphasis. Much is written concerning hemorrhage as a cause of maternal mortality; however, too little emphasis is given to the neonatal mortality. Thus, I wish to review some of the causes of neonatal posthemorrhagic anemia.

Wickster and Christian¹ list the following causes of posthemorrhagic anemia in the newborn infant at birth: 1) Abruptio placenta; 2) Placenta praevia; 3) Tear, rupture, or cutting of the normal cord, unsupported vessels (in velamentous insertion of the cord or running to a succenturiate lobe, or running between the lobes of a bipartite or multipartite placenta), blood vessels on the fetal surface of the placenta, or of a placenta that is placed anteriorly during a Cesarean section; 4) Occult fetal bleeding into the maternal circulation.

The first three causes are well known. However, fetal bleeding into the maternal circulation was first reported by Wiener² in 1948. He reported three cases of severe neonatal anemia due to unapparent hemorrhage from the fetal placental surface. This severe anemia of the newborn may simulate hemolytic disease of the

newborn. Unless these infants receive prompt blood transfusions, they go into shock and expire. Chown³ reported three infants with similar findings to those of Wiener.² He advanced the theory that a fetus who bleeds into the maternal circulation may cause the mother to have a transfusion reaction, and may itself suffer as a result of that reaction.

More recently, fetal blood loss into the maternal circulation has been recognized during the pregnancy by the presence of fetal cells in the circulation of the immunized mother.⁴

Occasionally one may diagnose intra-uterine bleeding by the presence of evanescent jaundice in the mother.

Differential Diagnosis A rare hereditary disorder causing neonatal hemorrhage is congenital afibrinogenemia.^{5,6} This occurs in the immediate neonatal period and is difficult to distinguish from hemophilia. The blood in afibrinogenemia may not clot for hours or days, and a fibrin deposit is not produced in the plasma on heating. The sedimentation rate in these infants is very low. Treatment consists of blood plasma or fibrinogen transfusions. If the mother has obstetric complications such as placental separation which produce afibrinogenemia in her, the infant is frequently stillborn.

Clinically, it is important to differentiate asphyxia pallida from hemorrhagic shock and to rule out hemolytic disease of the newborn (Rh or ABO incompatibilities).⁸ The infant suffering from hemorrhagic shock is pale, anemic, and usually has weak, rapid respirations, tachycardia, a weak cry, and some body movements with a slight tone. This baby's color and general condition does not respond to oxygen. The infant with asphyxia pallida is also

From the Department of Pediatrics of Northwestern University Medical School and The Children's Memorial Hospital, Chicago.

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pale, has bradycardia, and poor or absent respirations and body tone. This patient responds to oxygen after respirations have been started.

Congenital microspherocytosis (Minkowsky-Chaufford disease) is a very common hereditary hemolytic disease affecting people of English or northern European descent. The signs of this disease may be evident immediately after birth, or be unsuspected throughout life. Anemia, jaundice, and splenomegaly are the cardinal findings. Diagnosis is established by the presence of spherocytes on the blood smear, elevated reticulocyte count, and increased osmotic fragility. Treatment consists of transfusion in this young age group.⁹

Hemolytic anemia, leukopenia, and thrombocytopenia can occur in the infant as well as the mother with systemic lupus erythematosus.¹⁰

Purpura that occurs minutes to hours after birth may signify congenital thrombocytopenic purpura.¹¹ This condition may be self-limiting, or may require treatment with steroids¹¹ or exchange transfusions.¹²

The pediatrician is dependent upon the obstetrician to inform him of any abnormal conditions so as to aid him in the diagnosis of posthemorrhagic anemia and/or shock. Immediate blood transfusion therapy is imperative. Transfusion via the umbilical vein is the easiest and best route. Type O, Rh negative blood with Witebsky substance can be used for the transfusion if time does not permit proper typing and cross-matching of blood. This type of blood should be readily available in every obstetric unit. Details of care of the infant and of transfusions can be found elsewhere.¹

In addition to the problems of serious hemorrhage, one must be cognizant of nutritional deficiencies in the mother as a cause of anemia in the infant. However, this does not present the emergency of posthemorrhage anemia. Holly⁷ states that if the mother maintains adequate nutrition during her pregnancy, she will have

adequate folic acid and vitamin B-12 to prevent anemia. There is no evidence to indicate that supplements are necessary if there is an adequate diet. If there is megaloblastic anemia in the mother, folic acid and vitamin B-12 deficiency cannot be demonstrated in the neonate. While folic acid absorption by the fetus can produce a maternal deficiency and megaloblastic anemia, removal of vitamin B-12 by the fetus does not produce a deficiency in the mother. There is not a good explanation for this phenomena. Possibly the sources and storage of vitamin B-12 are greater than those of folic acid, or the quantity required by the fetus is small.

This has been a brief summary of the more common causes of posthemorrhagic shock and anemia of the newborn. While these neonatal conditions are uncommon, the pediatrician and obstetrician must constantly be on the alert. Recovery is only possible through prompt recognition and immediate transfusion.

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The View Box

LEON LOVE, M.D., Chicago



Figure 1

This 3 month old child entered with a one-week history of fever, fretfulness and swelling in the region of the jaw, left shoulder and right leg. No other significant findings were noted.

All laboratory work was within normal limits.



Figure 2

What is your diagnosis?

- 1) Multiple osteomyelitis
- 2) Leukemia
- 3) Caffey's (Infantile Cortical Hyperostosis)
- 4) Scurvy

(continued on page 322)

A Plea for the Transabdominal Repair

Hiatus Hernia

B. J. TATAROWICZ, M.D., Chicago

While the esophageal hiatus hernia is no longer the medical curiosity it was some three decades ago, it is still a moot point as to whether the abdominal or thoracic approach be used in its repair. In spite of the fact that Stuart Harrington, an acknowledged thoracic surgeon, preferred the abdominal route, it was not until the past decade that the abdominal approach has gained in favor.^{1,5,11}

No logical reason for this apparent apathy on the part of the abdominal surgeons can be found except that thoracic surgeons predominated in the presentation of contributions as regards surgical techniques and operative indications for repair of the hiatus hernia, and the belated realization of the significance and high incidence of this most interesting lesion! It is not the purpose of this paper to belabor the reader with additional diagnostic criteria or to present additional technical refinements. Many excellent studies are available both to the non-operative diagnostician as well as the surgeon.^{4,13}

As to the rationale of presenting yet another work on this topic, suffice it to say that the hiatal hernia ranked second only to the duodenal ulcer as the most commonly encountered lesion in a large series of gastrointestinal cases.³

Arguments Pro and Con

The concensus of opinion until recently has been that the transthoracic approach is preferable because of technical ease unless one suspects the co-existence of abdominal disease. This argument seems no longer tenable for several reasons. Firstly, the thoracic approach is

undoubtedly a more formidable and extensive operative venture with increased post-operation morbidity and potential cardio-pulmonary complications. Among expected complications will be found paralysis of the left hemi-diaphragm, atelectasis of the left lung, pleural effusion in the left chest and annoying degrees of intercostal neuralgia. Secondly, the abdominal approach with present day anesthesia offers a rapid and less complicated exposure of the crura and subdiaphragmatic region. In fact, the corpulent patient who would be the most likely to develop cardiovascular or pulmonary complications will tolerate celiotomy more readily than thoracotomy. Thirdly, the most common symptoms of hiatal hernia found in a large series of patients were heartburn, vomiting or regurgitation, dysphagia without x-ray evidence of persistent obstruction, and bleeding. Only in about 50 per cent of the patients could a definite symptom complex, suggestive of the presence of a sliding hiatal hernia be recorded.⁴ Surely with such a picture, it is a small wonder that the diagnosis of hiatal hernia as an etiologic factor is so often confused with chronic cholecystitis, peptic ulcer or coronary artery disease.

Report of a Case

A 54 year old white male complained of right upper quadrant pain which radiated to the substernal area. Occasional selective dyspepsia was noted. The symptoms were present for about one year but were much worse in the last three weeks. A complete upper and lower gastro-intestinal series disclosed only a fairly large esophageal hiatal hernia. The gallbladder appeared uninvolved with good contraction after the fatty meal. Because the patient failed to respond to a prolonged conservative regime and because of the appreciable size of his hernia, a repair of this defect was decided upon, via the abdominal approach. A spot roentgenogram of the esophageal area is shown in Fig. 1, as found pre-operatively and in Fig. 2 to

Department of Surgery, St. Mary of Nazareth Hospital, Chicago, Illinois.



Figure 1.

illustrate the results of the repair. At operation, in spite of the negative gall-bladder series, dense, chronic, pericholecystic adhesions were found, as well as a cherry-sized calculus, near the cystic duct opening. The pathologist reported fibrosis and chronic inflammation of the gallbladder in addition to the mentioned stone. Because of the significant size of the hiatal hernia, this was also repaired according to the technique of Madden⁸ and Allison.¹²

Comment

I have not the slightest doubt but what this patient's symptoms were secondary to his diseased gallbladder. In view of the negative x-ray studies as regards associated pathology, one might have well argued for a transthoracic approach with the result that the patient could have continued to suffer for many a moon before repeat cholecystograms by some astute diagnostician might eventually disclose the true etiology. Because a large asymptomatic hiatal hernia carries a 50 per cent incidence of serious complication, repair was carried out rather than subject the patient to an interesting but unfair statistical study.⁹

The plea for the abdominal approach of the usual hiatal hernia becomes more cogent when it is realized that demonstrable concomitant intra-abdominal disease occurs in over 40 per cent of patients plus an undetermined incidence of occult pathology as was shown by the case in point.^{6,11} Obviously, there will remain the lesser but ever present incidence of major structure complications of the esophagus, the esophageal-ring formations and the complicated incarcerated hæmiae which will necessitate the



Figure 2.

transthoracic or even combined thoraco-abdominal incision.^{6,9}

Summary

1. Hiatal hernia is ranked as the second most commonly encountered gastro-intestinal lesion.
2. Technical ease as the reason for transthoracic approach to the usual hiatal hernia is no longer justifiable.
3. Only about one-half of patients present a symptom-complex suggestive of the sliding hiatal hernia as the etiological factor.
4. A large asymptomatic hiatal hernia carries a 50 per cent incidence of serious complications if not repaired.
5. Demonstrable associated disease occurs in over 40 per cent of hiatal hernia patients.
6. The transthoracic or combined thoraco-abdominal approach may be necessary in the complicated hiatal hernia.
7. A case of unsuspected associated intra-abdominal pathology is presented as the etiological factor to demonstrate the advisability of the abdominal approach in the repair of the usual hiatal hernia.

A case in point was presented to illustrate the fact that the usual hiatal hernia even in the apparent absence of demonstrable associated abdominal pathology is not always an etiologic

factor. Therefore, unless the uncomplicated hiatal hernia is repaired by the abdominal approach, the patient may be subjected to formidable and unnecessary surgery. The contention that the transthoracic incision is easier technically is no longer true in the light of current knowledge, anesthesia and comparision of the overall morbidity.

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The View Box

— diagnosis and discussion

(continued from page 319)

Diagnosis: Caffey's Disease

The typical changes associated with this disease are noted in the right leg, mandible and left shoulder. The typical radiographic changes are those of soft tissue swelling and periosteal thickening, which extends along the shaft of the bone. Rarely, if ever, does the periosteal change extend beyond the metaphyseal ends of the bone. In the early stages, the marrow cavity appears to be encroached on by the dense cortical bone.

The return to normal varies in different cases. In some cases, the subperiosteal new bone decreases progressively over months by an absorptive process. In other cases, marrow tissue appears to extend beyond the old cortex into the new bone, so that the marrow cavity extends as far as the edge of the new bone. The old cortex is replaced by marrow tissue and the edge of the new bone forms a new cortex with compact bone. There are no residual deformities. The disease occurs under the age of 6 months, and no definite etiological agent has been proven.

Favorite sites of involvement in order of frequency are: mandible (in 75 per cent of the cases), ulnae, clavicles, ribs, radii, tibiae, femora, scapulae and fibulae.

A Look at the Radiology of Tomorrow

LEO G. RIGLER, M.D., *Los Angeles*

1. Radiology will increase its utility as a specialty because of its greater importance in future medical practice. The reason for this is that as time goes on we will be devoting more and more attention to the detection of disease in apparently normal people and in this respect roentgen examination is of the first importance.

2. With the aging of the population, the degenerative diseases, which are most amenable to roentgen examination and radiation therapy, will become more and more common. It is precisely within the group of people over sixty, whose numbers will increase radically in the next decades, that radiation procedures are most frequent and most useful.

3. I believe that the standards of practice of radiology will be greatly elevated because of the increasing numbers of better intellects in the medical school student body who are electing to go into radiology as a future career. The period of graduate training in radiology will be prolonged but the time consumed by primary, secondary, and college education will be shortened, thus permitting the individual to assume independence in the specialty at least as early as at present.

4. Research in the field of diseases of the aging must increase enormously because our efforts to prolong life after the age of sixty have been notably unsuccessful. Despite the marked increase in the total span of life during the past sixty years, there has been an increase

of only two years in the life span of those individuals who reach the age of sixty. In this area of research, radiology will have an extremely important part.

5. The development of non-toxic contrast substances will greatly enhance diagnostic results through the detailed study of small blood vessels and lymphatics. Contrast substances which can be secreted or excreted into the brain, the gastrointestinal tract, as they are presently in other systems will be discovered. Organs such as the pancreas, liver, ovaries, uterus, and others now relatively difficult to examine, will become amenable to x-ray study because newer technics and better contrast media will become available.

6. Computers will find increasing usefulness, especially for the tabulation of roentgenograms, the calculation of the significance of various changes, and the determination of the results of therapy.

7. Technical developments which will tend to mechanize radiology to an even greater degree than it is today are in the offing. Some degree of mechanical sorting of the normal roentgenogram from the abnormal will be required and no doubt will be devised. Such a development becomes necessary because we will be examining much larger numbers of apparently normal people routinely and the tasks of interpretation will present an enormous problem unless such methods are devised.

8. Automation of the technical aspects of roentgen diagnosis will increase so that radiation exposure to physician, technician, and patient will be substantially reduced. This is imperative because the number of examinations per patient will be greatly increased. Other technical improvements will likewise reduce the exposure per examination to a figure of low significance.

Professor of Radiology, University of California,
Los Angeles.

Summary of a speech delivered at the 50th anniversary of the Chicago Roentgen Society, February, 1963. Two additional papers delivered at the anniversary meeting will appear in future issues of IMJ.

9. Television and taping will greatly accelerate diagnostic procedures, tend to eliminate conventional fluoroscopy and ordinary spot-filming. At the same time, the use of tapes will almost eliminate the storage problem and advance enormously our ability to chart the disease history of every individual. The use of tapes to record curves of isotope results will also enhance the usefulness of such substance in diagnosis.

10. The use of isotopes, particularly for the study of physiological phenomena, will be increased, especially when we are able to obtain isotopes of extremely short half life and thereby be permitted to use larger doses, resulting in finer definition and greater accuracy.

11. Radiation therapy will be greatly enhanced by the use of chemical substances which will act with the radiation to produce a greater effect. While there will be little change

in the radiation therapy procedures, the expertness with which they are conducted will be improved so that radiation therapy as practiced in very large centers will be available throughout the entire country.

12. There will be a change in the economics of radiological practice but not a drastic one. An increasing concentration of radiological practice in hospitals and in clinic groups will take place with a corresponding decrease in the office practice of radiology. In the case of radiation therapy, this may well represent a concentration of procedures in large centers. In the case of roentgen diagnosis, the concentration will be directed toward hospitals and groups. Nevertheless, I believe that the fundamental private practice of radiology will continue unless there is some drastic upheaval in the entire socio-economic status of the country.

Passive Conditioning For Physicians

I have devised an exercise that only requires one or two minutes, which is equivalent to the usual energetic physical exercise lasting thirty minutes or more.

The obvious advantages are that this type of conditioning is time-saving, no equipment is necessary, one doesn't become over-heated or short of breath and it doesn't leave you exhausted.

To condition all the muscles of the body regularly it is necessary to maintain positive physical fitness. The results are beneficial, for in reality one is actually exercising his arteries. By maintaining elasticity one is less apt to have a coronary or cerebral accident. Professional men have a sedentary occupation and are prone to permit their muscles and "figure" to deteriorate.

The purpose of this program is two-fold;
(1) Prevention of muscular flabbiness

and deterioration

and (2) Prevention of vascular accidents

The exercise is simple. To flex or tense the calf muscles, merely raise up on your toes. While in this position, flex or tense in order, the thighs, buttocks, abdomen, pectoralis, biceps and forearms. As you flex the abdominal muscles, hold your breath and strain. Hold this position as long as you can. Then relax and slowly exhale. Repeat for five times. Do this at least three times a week. After two or three weeks it may be done ten times instead of five.

This routine can be performed standing up, sitting or even lying down during a spare moment or two.

I strongly recommend it.

Martin M. May, M.D.,
Marion, Illinois

Choice of Systemic Antimicrobial Agents

INFECTING ORGANISM	DRUGS OF FIRST CHOICE	ALTERNATIVE DRUGS
Gram-positive cocci		
Streptococcus pyogenes groups A,B,C,G	penicillin ¹	erythromycin ²
*Streptococcus viridans, some resistant streptococcus pyogenes C and G	penicillin ^{1,3} with or without streptomycin	erythromycin ² with or without streptomycin; chloramphenicol, ⁴ tetracycline ⁵
*Enterococcus	penicillin ^{1,3} with streptomycin	erythromycin ² or tetracycline ⁵ with bacitracin, vancomycin, tetracycline ⁵ with erythromycin ²
Pneumococcus	penicillin ¹	erythromycin; ² tetracycline ⁵
Staphylococcus aureus, non-penicillinase producing	penicillin ¹	erythromycin ² with tetracycline ⁵ or chloramphenicol ⁴
—*penicillinase producing	oxacillin ^{1,6} or methicillin ^{1,6}	vancomycin; ristocetin; bacitracin;
		⁷ erythromycin ² with novobiocin; tetracycline ⁵ or chloramphenicol ⁴
Gram-negative cocci		
Meningococcus	sulfonamide ⁸ or penicillin ^{1,3}	erythromycin; ² chloramphenicol; ⁴ tetracycline ⁵
Gonococcus	penicillin ¹	tetracycline; ⁵ erythromycin ²
Gram-positive bacilli		
Clostridium tetani ⁹	penicillin ^{1,3}	erythromycin; ² tetracycline ⁵
—other Clostridia ¹⁰ (gas gangrene)	penicillin ¹ with streptomycin or tetracycline ⁵	erythromycin; ² with streptomycin, tetracycline ⁵ or chloramphenicol ⁴
Corynebacterium diphtheriae ¹¹	penicillin ¹	erythromycin; ² tetracycline ⁵
Actinomyces	penicillin ^{1,3} with tetracycline ⁵	sulfonamide ⁸

(See page 328 for footnotes)

INFECTING ORGANISM	DRUGS OF FIRST CHOICE	ALTERNATIVE DRUGS
Acid-fast		
Mycobacterium tuberculosis	isoniazid and either <i>p</i> -aminosalicylic acid or streptomycin	¹³ { viomycin; ¹² cycloserine; pyrazinamide; ethionamide
Nocardia	sulfonamide ^{8,8} with tetracycline ⁵	sulfonamide ⁸ with cycloserine, chloramphenicol ⁴ or streptomycin
Gram-negative bacilli		
Salmonella	chloramphenicol ⁴	tetracycline; ⁵ ampicillin; ¹ or oral kanamycin, neomycin or paromomycin
Shigella	sulfonamide ⁸	tetracycline; ⁵ chloramphenicol; ⁴ or oral kanamycin, neomycin or paromomycin
*Escherichia coli (enteric)	tetracycline ⁵ with or without streptomycin	chloramphenicol ⁴ with or without streptomycin; or oral kanamycin, neomycin, paromomycin, polymyxin B or colistimethate
—*other Escherichia coli	sulfonamides ⁸	nitrofurantoin; ¹⁴ tetracycline ⁵ or chloramphenicol ⁴ with or without streptomycin ¹⁵
Brucella	tetracycline ⁵ with streptomycin	chloramphenicol ⁴ with streptomycin; tetracycline ⁵ or chloramphenicol ⁴ with a sulfonamide ⁸
Pasteurella tularensis	streptomycin	tetracycline; ⁵ chloramphenicol ⁴
Hemophilus influenzae	tetracycline ⁵ with or without a sulfonamide ⁸	chloramphenicol ⁴ or ampicillin ¹ with or without a sulfonamide; ⁸ streptomycin with a sulfonamide ⁸
Hemophilus ducreyi (chancroid)	tetracycline ⁵	chloramphenicol; ⁴ streptomycin; sulfonamide ⁸
Bordetella pertussis	tetracycline ⁵	chloramphenicol; ⁴ kanamycin ¹² or neomycin; ¹² polymyxin B ¹⁶ or colistimethate; ¹⁶ streptomycin with a sulfonamide ⁸
*Aerobacter	tetracycline ⁵ with streptomycin	chloramphenicol ⁴ with streptomycin; polymyxin B ¹⁶ or colistimethate; ¹⁶ kanamycin ¹² or neomycin; ¹² sulfonamide ⁸
*Klebsiella	tetracycline ⁵ with streptomycin	chloramphenicol ⁴ with streptomycin; polymyxin B ¹⁶ or colistimethate; ¹⁶ kanamycin ¹² or neomycin; ¹² sulfonamide ⁸

(See page 328 for footnotes)

INFECTING ORGANISM	DRUGS OF FIRST CHOICE	ALTERNATIVE DRUGS
Gram-negative bacilli (continued)		
* <i>Proteus mirabilis</i>	penicillin ^{1,3}	kanamycin ¹² or neomycin; ¹² chloramphenicol; ⁴ tetracycline ⁵
—*other <i>Proteus</i>	kanamycin ¹² or neomycin ¹²	chloramphenicol; ⁴ tetracycline ⁵
* <i>Pseudomonas</i>	polymyxin B ¹⁶ or colistimethate ¹⁶	
* <i>Bacteroides</i>	tetracycline ⁵	chloramphenicol; ⁴ penicillin ¹
<i>Fusobacterium (Vincent) fusospirochetes</i>	penicillin ¹	erythromycin; ² tetracycline ⁵
<i>Donovania granulomatis (granuloma inguinale)</i>	streptomycin	tetracycline; ⁵ chloramphenicol ⁴
<hr/>		
Dark field		
<i>Treponema pallidum</i>	penicillin ¹	erythromycin; ² tetracycline ⁵
<i>Leptospira</i>	penicillin ¹	tetracycline; ⁵ chloramphenicol ⁴
<hr/>		
<i>Rickettsia, Coxiella</i>		
(Rocky Mt. spotted fever, endemic typhus, Q fever)	demethylchlortetracycline, chlortetracycline or oxytetracycline	chloramphenicol ⁴
<hr/>		
Filtrable agents		
<i>Psittacosis virus</i>	tetracycline ⁵	chloramphenicol ⁴
<i>Lymphogranuloma venereum virus</i>	tetracycline ⁵	chloramphenicol; ⁴ sulfonamide ⁸
<i>Pleuropneumonia (Eaton- agent, "atypical" or "viral" pneumonia)</i>	demethylchlortetracycline or chlortetracycline	chloramphenicol ⁴
<hr/>		
Fungi		
<i>Histoplasma capsulatum</i>	amphotericin B	sulfonamide ⁸
<i>Candida</i>	amphotericin B	nystatin
<i>Cryptococcus neoformans</i>	amphotericin B	
<i>Coccidioides</i>	amphotericin B	
<i>Blastomyces</i>	amphotericin B or hydroxystilbamidine	
<i>Sporotrichum schenckii</i>	iodides	griseofulvin
<i>Microsporon</i>	griseofulvin	
<i>Trichophyton</i>	griseofulvin	
<hr/>		

(See page 328 for footnotes)

PARTIAL LIST OF BRAND NAMES

Amphotericin B—Fungizone	Griseofulvin—Fulvicin;	Pen Vee; V-Cillin
Ampicillin—Penbritin	Grifulvin V; Grisactin	Phenethicillin—Syncillin
Chloramphenicol—	Kanamycin—Kantrex	Polymyxin B—Aerosporin
Chloromycetin	Methicillin—	Ristocetin—Spontin
Chlortetracycline—Aureomycin	Staphcillin; Dimocillin	Sulfisomidine—Elkosin
Colistimethate—Coly-Mycin	Nitrofurantoin—Furadantin	Sulfisoxazole—Gantrisin
Cycloserine—Seromycin	Novobiocin—Albamycin	Tetracycline—Achromycin;
Demethylchlortetracycline—	Nystatin—Mycostatin	Tetracyn; Sumycin
Declomycin	Oxacillin—	Trisulfapyrimidines—
Erythromycin—	Prostaphlin; Resistopen	Terfonyl; Trisureid
Erythrocin; Ilotycin	Oxytetracycline—	Vancomycin—Vancocin
Erythromycin Estolate—Ilosone	Terramycin	Viomycin—
Ethionamide—Trecator	Paromomycin—Humatin	Vinactane; Viocin
	Penicillin V—	

FOOTNOTES

*Bacterial susceptibility tests are usually essential.

1. The frequency and severity of allergic reactions to penicillin (especially parenteral) require that it be given with appropriate precautions. For oral therapy, penicillin V or phenethicillin is preferred to G by some Medical Letter consultants, since both are significantly more resistant to acid degradation. Other consultants find that absorption of penicillin G is usually adequate when it is taken on an empty stomach. For serious infections, parenteral administration of penicillin is mandatory. (For newer penicillins, such as ampicillin [not yet available in U.S.], see The Medical Letter, 5-9, February 1, 1963).
2. Intrahepatic cholestasis with jaundice has occasionally followed use of erythromycin estolate (Ilosone), it is apparently related to hypersensitivity, and is most likely to occur when the drug is taken for more than 10 days or in repeated courses. Though triacetyloleandomycin (TAO, Cyclamycin) is often used instead of erythromycin, most consultants felt that it did not merit inclusion in the list of recommended drugs.
3. High dosage usually advisable.
4. Should not be used for minor infections or in newborn, or where less hazardous agents are effective.
5. Any of the tetracycline group of antibiotics may be used.
6. Until results of bacterial sensitivity tests are known, penicillin G should be used *with* oxacillin or methicillin in initial treatment of severe staphylococcal infections.
7. Erythromycin together with oral dosage of either novobiocin, a tetracycline, or chloramphenicol may be used for the treatment of less severe resistant staphylococcal infections.
8. A soluble sulfonamide, such as Trisulfapyrimidines USP, Sulfisoxazole USP, or sulfisomidine, should be used. For parenteral administration, Sulfadiazine Sodium injection USP is preferred.
9. Debridement and antitoxin are primary; antibiotics are supplementary.
10. Debridement is primary; value of antitoxin disputed.
11. Antitoxin is primary; antibiotics only for carrier state or as adjuncts to antitoxin.
12. With parenteral administration, auditory nerve damage and renal injury may occur; frequent audiometric and renal tests are essential.
13. Drugs in this group should be used in combination with a first-choice drug or another alternative drug (Medical Letter, 4:83, 1962).
14. For antibacterial action in urine; does not penetrate into tissues.
15. For urinary-tract infections; effective only in alkaline urine.
16. Administered parenterally; renal and neural toxic effects may occur.

Reprinted from the Medical Letter, Vol. 5, No. 5, March 1, 1963.

Measles Vaccine

A new weapon for the potential eradication of measles is now available. Both the live and inactivated (killed) vaccines have been licensed by the government and approved for general use by the United States Public Health Service, the American Medical Association, the American Academy of Pediatrics and here in Illinois, by the Committee on Child Health of the Illinois State Medical Society.

It is hoped that all physicians will urge families to take advantage of measles immunization in susceptible children. Through mass media—radio, television, and the press—the public has been, and will be made aware of the importance of and availability of measles vaccination through family physicians. For those families who cannot afford private medical care, vaccine will have to be made available in local health department facilities and in hospital or welfare clinics.

A disease that had a death toll of over 400 infants and children with an estimated inci-

dence of over 4,000,000 in 1961, and as a result of which, serious complications such as encephalitis, pneumonia, otitis media and others occur, justifies a campaign for universal vaccination in susceptible children.

The tentative schedule outlined by the United States Public Health Service and endorsed by the heretofore mentioned medical group is presented in Table 1.

With respect to side effects from vaccine administration, they are minimal when immune globulin is administered simultaneously in a separate location with live vaccine, and rarely occurs following inactivated (killed) vaccine.

The choice of vaccine should be the responsibility of the individual physician, realizing that the live vaccine induces poor immunity prior to 9 months of age due to placental transfer of maternal antibodies to the fetus, and that there are some contradictions based on possible risk, namely "during pregnancy, in the presence of leukemia, lymphomas and other generalized

Table 1

Schedule	Type of Vaccine	Doses* and Administration	Comment
1	Live, Attenuated Vaccine	1	
2	Live, Attenuated Vaccine plus Measles Immune Globulin	1 plus Measles Immune Globulin (.01 cc per pound at different site with different syringe.)	Although the live, attenuated vaccine may be administered safely with or without the simultaneous administration of Measles Immune Globulin, most physicians will wish to use the two combined because of the lessened reactivity.
3	Inactivated Vaccine	3** (monthly intervals)	In view of the rapid fall off in antibody and lack of data regarding persistence of immunity beyond 6 months, use of this vaccine is not preferred at this time except for special groups in which live attenuated vaccine is contraindicated.
4	Inactivated Vaccine followed by Live, Attenuated Vaccine	Pending	This approach to measles immunization appears promising; recommended schedules will be developed as more data become available.

*Manufacturers directions regarding volume of doses should be followed.

**In view of rapidly declining antibody levels, it would appear that one or more subsequent booster doses will be necessary. Data are not yet available to indicate when or with what frequency these will be required.

malignancies; therapy which depresses resistance such as steroids, irradiation, alkylating agents, antimetabolites; severe febrile illness; marked egg sensitivity. Recent gamma globulin administration (more than 0.01 cc per pound body weight within six weeks), precludes its use during this interval." The only contraindication to inactivated measles vaccine is marked sensitivity to egg in the use of vaccine prepared from chick embryo.

The advantages of live vaccine are that it is given in a single dose, and immunity is long lasting whereas the inactivated vaccine immunization requires three doses and immunity is of shorter duration. There is evidence that inactivated vaccine may be given in early infancy, followed by live vaccine later. (Schedule 4).

In our own practice, my two colleagues and I have vaccinated approximately 800 children up to the present time with attenuated live vaccine and simultaneous immune globulin with no complications and less than 3 per cent mild

to moderate febrile reactions (with and without rash) and of short duration.

There is good evidence that refined, inactivated live measles vaccine producing minimal reactions without the use of immune globulin, may be forthcoming within the near future.

In answer to the frequent question by parents: how long does immunity last, the answer is we do not know, but have reasons to believe that it may be lifetime following live vaccine. Subsequent studies, over the years, in vaccinated children will determine the duration of immunity,—this also is the question frequently asked relative to live poliomyelitis vaccine, and the answer is the same. It may be necessary to give a booster dose every four or five years or longer; nevertheless, this possibility does not detract from the tremendous value of the vaccine.

Ralph H. Kunstadter, M.D.
Chairman, Committee on Child Health

IMJ/Guest Editorial

Oral Leukoplakia

Although the incidence of cancer is steadily on the increase, little is heard of the precancerous condition leukoplakia believed to be present in 2 to 3 per cent of all elderly people. This benign hyperkeratosis of mucous membrane may occur in any mucous membrane and is most common in the mouth.

In a study of 113 patients¹ with oral leukoplakia, the buccal mucous membrane was involved in 51.3 per cent, the tongue in 39 per cent, the lips in 34 per cent, the gums in 19.6 per cent, the palate in 7 per cent and the floor of the mouth in 5.3 per cent. None had involvement of the pharyngeal mucous membrane. In this series, 20 per cent of the patients presented associated malignant disease. This is a much higher percentage than one would expect because some patients referred for treatment of oral cancers were found to have leukoplakia. The average age of the patients was 57 years. In this series, 80 per cent were men and 20 per cent were women.

The cause of this disease is unknown, but it

is frequently found in areas irritated by the teeth, gum infections, tobacco or food so there is a general assumption that chronic irritation is the etiological factor. In the study, only 43.5 per cent used tobacco so it is obvious that the often used term "smoker's patch" is not applicable. The suggestion that vitamin deficiency is of etiological significance was disproved by therapeutic trials.

The routine physical examination of an elderly patient should include a careful search of the oral mucous membrane for leukoplakia. Because the condition is symptomless unless advanced, the patient usually will have no complaint. The pearly gray or white lesion is elevated above the mucous membrane and may be thick or thin. A slight hyperemia in the adjacent tissues is usually present. Occasionally confused with lichen planus or Fordyce's disease, leukoplakia can be easily diagnosed through biopsy.

The frequency with which malignant change occurs in or adjacent to a patch of leukoplakia

makes it essential that oral leukoplakia either be destroyed, controlled, or carefully watched. Routine "Pap" smears should be made of scrapings of an area of leukoplakia or any other chronic pathologic process found in the oral mucous membrane of adults.

Small accessible areas may be removed surgically. The application of beta rays from an unscreened beta ray radium plaque held against the growth will destroy 80 per cent of the lesions and reduce the remaining 20 per cent to a thin inactive state. The therapy, given in divided doses, should be sufficient to produce a

sharp reaction. Although it has not been reported, treatment with beta rays from a strontium applicator undoubtedly would produce the same result.

The seriousness of intraoral malignant disease makes it mandatory that physicians diagnose oral leukoplakia if present and at least carefully observe it at frequent intervals.

1. Breed, J. Ernest. Leukoplakia and Associated Carcinoma of the Oral Mucosa. *CLINICAL MEDICINE*, Volume 69, Number 12, December, 1962.

J. Ernest Breed, M.D.

IMJ/Guest Editorial

The Surgical Treatment of Cardiospasm

The word tantalizing aptly describes the plight of the patient with cardiospasm. He is in a land of plenty surrounded by good things to eat and drink, but can't enjoy them. This is a real life duplication of the punishment of the King Tantalus of Greek mythology.

Some patients with cardiospasm put up with the distress and embarrassment of dysphagia for years until disabled by aspiration pneumonitis from nocturnal spillover into the lungs. This is not necessary as their difficulty can be relieved by a simple operation.

A successful operation for cardiospasm was described by the German surgeon, Heller, in 1913.¹ In a technique similar to the Ramstedt operation for congenital pyloric stenosis, the hypertrophied muscle layers of the lower esophagus are incised keeping the mucosa intact. The important sling fibers of the stomach² and the muscular ring of the esophageal hiatus of the diaphragm are preserved. The incision relieves obstruction to swallowing but does not result in reflux in the gastric juice into the lower esophagus.

The first esophageal myotomy done in our clinic was in 1941.³ Since that time a large series of cases have been operated on with excellent results. There has been no mortality.

Ordinarily the patient leaves the hospital on the ninth postoperative day on a regular diet. This is one of the most gratifying of esophageal operations.

Esophageal myotomy is a more satisfactory method of treatment than hydrostatic dilation. Although it is true that dilation has helped many patients, the improvement is usually transient. Many patients object to the unpleasant prospect of repeated dilatations. In addition dilation is not without hazard and every sizable series is accompanied by a definite mortality rate. The decisiveness of esophageal myotomy and its lasting good results account for the layer of dust accumulating on the dilators in many clinics.

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Thomas Gahagan, M.D., Detroit

Division of Thoracic Surgery, Henry Ford Hospital, Detroit 2, Michigan

The Physician and State Narcotic Laws

This article has been prepared by Illinois Department of Public Safety, Division of Narcotic Control, who are charged with enforcement of the State narcotic laws. It is intended to remind physicians of their responsibility and furnish them useful information for complying with the requirements of these acts. Enforcement of these acts is not limited to the Division. Local law enforcement agencies also prosecute violators. The acquisition, prescribing and administering of narcotic drugs by medical practitioners is covered by the Federal Narcotic Law, as well as the State laws. In general, the requirements for compliance with both laws is the same except for licensing and use of special prescription forms furnished by the state.

Special Tax Stamp

Before a doctor is permitted to prescribe narcotics, he must first obtain a license or "Special Tax Stamp", as it is entitled, from the Federal Narcotic Bureau. The state does not issue narcotic licenses to doctors. Next, the doctor must obtain from the Division and submit to them an application, accompanied by \$1.00, to the Division requesting State narcotic prescription books. These books are always issued in sets of four, each of which contains 25 serially numbered triplicate prescription blanks. The doctor gives the patient the original and the first carbon copy. The doctor keeps one carbon copy. All three copies must be signed by the prescriber. He is required to keep this for a period of two years and make it available to law enforcement officers for their examination. These books should be safe-guarded by the doctor by keeping them in a locked place when not on his person. They should not be left where they may be seen and stolen by patients. The Division is frequently notified by doctors that after they have examined a new patient who vaguely complained of severe pains and requested narcotics for them, that after the patient left, they found their State narcotic prescription book missing.

Narcotics can only be legally acquired by doctors by buying them from a manufacturer or wholesaler, on a special order form supplied by the Federal Narcotic Bureau. It is illegal for a doctor to obtain narcotics for office use by issuing prescriptions to retail pharmacists.

Practitioners shall keep a record of all narcotics received, administered, dispensed, or professionally used by them. However, no record need be kept where the amount used in the treatment of any one patient does not exceed in 48 hours four grains of opium, or one-half of a grain of morphine or two grains of codeine or any other narcotics that do not exceed in pharmacologic potency any one of the drugs named above in the quantity stated. Whenever a doctor's State prescription blanks or narcotics are stolen or lost, he must immediately report the loss to the proper law enforcement agencies. The loss of the narcotics is to be reported to the Federal Narcotic Bureau, and the loss of the prescriptions to the Division. Also, the doctor should immediately report the theft to local law enforcement agencies. It is important that the doctor report the loss to the Division promptly so that we may add the serial numbers to the lists of lost prescriptions circulated to all retail drug stores. This is done so that they will not fill these

prescriptions after they have been forged by an addict. They may materially assist in the apprehension of an addict.

Class A Narcotics

Class A "Narcotic Drugs", can only be prescribed on State narcotic prescription blanks, except where in the case of a sudden injury, calamity or epidemic, to save a life or stop intense suffering. Then the doctor may use his regular blanks but must explain the emergency on his prescription. Prescriptions, oral or written, are not necessary for prescribing Exempt Narcotics or Class M narcotics, as designated by the Federal law. Presently, the State does not have a Class M as these are included in the Exempt Narcotics. Under the State law drug preparations containing up to two grains of opium, one-fourth grain of morphine or one grain of codeine per ounce are classed as Exempt Narcotics. A person may sell or dispense certain preparations containing up to four grains of opium, one-half grain of morphine, or four grains of codeine to any one patient within a period of 48 consecutive hours without prescriptions. Larger amounts are considered Class A narcotics and should be written on the State narcotic forms. Class B or "Oral Prescription Narcotic Drugs" should be written on regular prescription blanks and not on State blanks.

Certain restrictions are placed on medical doctors and other practitioners for prescribing narcotic drugs. A physician may prescribe for, furnish to, or administer narcotic drugs when the patient is suffering from a disease, ailment, injury or infirmities attendant upon old age, other than for addiction. A physician shall prescribe, furnish or administer narcotic drugs only, when in good faith, he believes the disease, ailment, injury or infirmity requires such treatment and only in such quantity and for such length of time as are reasonably neces-

sary; the regulations provide, however, that a physician may treat any addict who is confined to any city or county jail, penitentiary, or any county, state or federal hospital or any hospital approved by the Division for the treatment of such addiction. It is illegal for a doctor to prescribe narcotics merely to gratify the needs of an addict or for more than one doctor to knowingly prescribe narcotics to the same patient.

Syringe, Needles Regulations

The Illinois Hypodermic Syringe and Needles Act governs the sale of these items. They can only be dispensed by a druggist on the prescription of a practitioner. In prescribing for these items, the doctors must use their regular prescription forms and not those supplied by the State, for Class A narcotics. Numerous prosecutions have been made for illegal dispensing and possession of these items.

The Division and other law enforcement agencies must perforce rely on the cooperation and good will of the medical profession in curtailing the illegal use and apprehension of narcotic addicts.

It is of material assistance to law enforcement agencies for them to report immediately when patients, particularly new patients whom they suspect of being addicts, attempt to obtain prescriptions from them. They should telephone the nearest Division office at Chicago, 839 West Exchange Avenue, Chicago, (phone: 247-4336) or the Springfield Office at 623 East Adams Street, Springfield (phone: 527-6611, Ext. 6053) or the nearest local law enforcement agency, so that an immediate investigation can be made. When telephoning the local law enforcement agencies, they should request that plain clothes officers be sent as not to arouse the suspicion of the patient when they arrive at the office.

Legal Problems Related to the Care of the Mentally Ill Patient

The Backlash of a Broken Chain

C. H. HARDIN BRANCH, M.D., Salt Lake City, Utah

INSISTENCE ON A JURY TRIAL as the only sure way of guaranteeing the protection of the legal rights of the mentally ill person certainly raises some question about the real motivation of the proponents of a return to this cruel and medieval system. No one could want to return to this method if he had seen the bewilderment and fright of the mentally ill person whose need for treatment is being discussed in an open hearing in a setting that could not fail to convince him that he is going to be tried for a crime.

Lest it be thought that the objection to jury trials arises only from psychiatrists, presumably naive in the needs and procedures required by law, one may note the following excerpt from an article in the *Northwestern University Law Review*¹:

Jury trial with its many delays is a barrier to prompt medical care. In medical judgment, jury trial has an extremely harmful effect because of its customary identification with criminal proceedings. Its only possible justification lies in protection from wrongful confinement. . . . The jury affords no protection against wrongful confinement when it is not qualified to decide whether or not such confinement is wrongful. It merely maximizes the possibility of error in judgment and should be eliminated.

Professor, Department of Psychiatry, University of Utah College of Medicine; President, American Psychiatric Association.

Abstracted from the New England Journal of Medicine, Volume 269, Number 3 (July 1, 1963), pp. 137-142.

There is also much public fear about "railroading." A magazine article² mentioned several supposed instances of "railroading" and is replete with such words as "accused of mental illness" and "illegal imprisonment." This sort of propaganda cannot fail to be extremely disturbing to the relatives of mentally ill persons who resist hospitalization for treatment.

Why is there fear of psychiatrists and psychiatry? Have they developed so poor a public image of themselves and their specialty that intelligent and presumably well people can take this hogwash seriously?

Attitudes toward mentally ill persons have improved. People are more inclined to accept them, to employ them and to regard them as nondangerous. But their special physicians are regarded by humorists and cartoonists as bizarre, different and unrealistic. On a more serious, uncomfortable and dangerous level, those in the mental-health field are too often considered the tools and weapons of godless, destructive forces seeking world domination through the enslavement of minds.

Persons resisting these forces are, according to some pamphleteers, in danger of being committed as insane, spirited away to prisons disguised as mental hospitals and there subjected to various "treatments" designed to make them into robots under control of their psychiatric masters.

The picture with reference to admissions to psychiatric hospitals is steadily improving.

Some of this may be due to better mental-health education, changes in attitude on the part of the general public and more widespread acceptance of psychiatry. Some of it may be due to the removal of the care of mentally ill patients from the centrally located and often isolated state hospitals to the psychiatric units in general hospitals. It seems on the face of it that since people are used to going to general hospitals, the admission to the psychiatric unit would be more familiar and perhaps much better tolerated than the admission to the isolated public mental hospital. This has certainly been true in Utah. During the period 1960-61 the Utah State Hospital admitted 846 patients, 67 per cent on court orders. During the same year 5 other private and community hospitals in the State admitted 2039 patients, most of whom were on voluntary admissions. This suggests that some progress has been made toward making voluntary hospitalization for mental illness more palatable to patients and their families.

Much of the improvement can be attributed to what is called a "Draft Act Governing Hospitalization of the Mentally Ill."³ Work on the Act started early in 1949 at the request of the National Advisory Mental Health Council with a working committee consisting of Drs. James V. Lowry and Riley H. Guthrie, of the National Institute of Mental Health, Mr. Israel S. Sonenshein, of the Office of General Council, Dr. Winfred Overholser, superintendent of St. Elizabeth's Hospital, and Mr. Franklin N. Flaschner, attorney, of Boston. This act was first amended in 1952, after consultation with the representatives of the Federal Security Agency, the National Association for Mental Health and the National Institute for Mental Health. Since this act was written, many states have adopted it in whole or in part as the basis for their own commitment laws. Most psychiatrists are undoubtedly familiar with its main provisions, but the important thing from the historical point of view is the elimination of the idea that the possibility of injury was the only basis for involuntary hospitalization. The Draft Act adds that the patient must be found to be mentally ill and, because of his illness, likely to injure himself or others if he were allowed to remain at liberty, or is in need of hospitalization but, because of his illness, lacks

sufficient insight or capacity to make responsible decisions about hospitalization. These determinations are made on the basis of a medical opinion (I am referring now to the court-order hospitalization) and such other information as may be brought before the court. The court then determines whether or not hospitalization is necessary. The Draft Act itself explains it: "In short, the state through its courts is authorized to make for the individual a decision which by reason of his illness, he is incapable of making for himself."⁴ In this procedure the public hearing is also eliminated, with the criminal connotation, the jury trial, the necessity for the patient to be present at the hearing and so forth.

For some reason, the Draft Act excited a great deal of comment at various times from people who seem to me to have an inordinate fear that it would result in what one publication called "the midnight knock on the door." The situation became more acute, however, with the appearance of the so-called Alaska Mental Health Act,⁵ which was simply the Draft Act with some additions. It provided that every proposed patient should have an opportunity to be represented by counsel, and if counsel were not provided by the patient or by others, the United States Commissioner would appoint counsel. Also, the patient or his counsel or any immediate member of his family could file a written request for a jury consideration of the situation. An additional provision was the allocation to the Territory of Alaska of land within the Territory, not to exceed 1,000,000 acres, with the understanding that the Territory could lease and make conditional sales of selected lands, including the mineral rights, and with such income provide for its own mental-health program. Through some misreading, the 1,000,000 acres of land were thought to be a sort of barbed-wire-enclosed concentration camp to which religious and political prisoners could be committed on the grounds of being mentally ill and kept there incommunicado indefinitely. This peculiar misconception has come to light again and again, usually under a heading such as "The American Siberia."

Those who believe that mental-health legislation of this sort does provide an opportunity for initiating "charges of having a mental ill-

ness" against any person, particularly one who disagrees with the accused on religious or political grounds, thought that they had received considerable support from the decision of the Supreme Court of Missouri, handed down on June 14, 1954, in the case *ex rel Fuller versus Mullimax*⁶ (269 S.W. 2d. 72 [Mo. Sup. Ct., 1954]). Here, the court held that the question of notice to the individual was an essential part of the due-process proviso, and accordingly it regarded the statute in its present form as unconstitutional. The court admitted that appropriate provisions embodying this safeguard—that is, the provision of notice—could be fitted into the present framework of the act and added that medical certification and court order were not the same as a warrant. It follows that there is nothing unreasonable in the statutory procedures by which the mentally ill are to be hospitalized. The main problem seems to be the one having to do with notice to the patient.

In the monumental study, *The Mentally Disabled and the Law*, the report of the American Bar Foundation on the Rights of the Mentally Ill, the following conclusions and recommendations regarding the problems of obtaining adequate treatment without neglecting the constitutional rights of the patient are reached:

The degree of mental illness that justifies involuntary hospitalization should be clearly expressed in the statutes.

Too many statutes retain terminology employed in criminal proceedings.

Alleged mentally ill persons are entitled to notice and an opportunity to be heard.

Alleged mentally ill persons should be entitled to representation of counsel.

Property rights should not be neglected when patients are involuntarily hospitalized.

Independent proceedings for the temporary or observational hospitalization of the mentally ill should be adopted.

In addition to independent temporary or observational hospitalization, provisions should be adopted to allow sufficient time to observe and diagnose alleged mental illness before the hearing on the issue of indeterminate hospitalization.

Special provisions for the emergency detention of the mentally ill should be adopted.

One could dismiss as unimportant the activities of the various groups and individuals who propose mental-health legislation like the "Bill of Rights for Mental Freedom." Unfortunately, they are sometimes able to accomplish obstructive legislative changes that could, in the long run, obviate much of the progress made since the publishing of the Draft Act. The legislation in some states has already been mentioned, and the following amendment was offered to one of the mental-health bills in the state of Utah:

It shall be a felony to give psychiatric treatment, non-vocational mental health counseling, casefinding testing [*sic*], psychoanalysis, drugs, shock treatment, lobotomy, or surgery to any individual to change his concept of, belief about, or faith in God.⁷

This amendment was actually passed by the Utah House of Representatives and finally took the form of an amendment to the State Mental Health Services Act requiring that no person could receive treatment under the Act without the signed permission of a clergyman of his choice and of his next-of-kin. The fact that some people had no clergyman and that in some cases marital difficulties would have prevented getting the signed consent of the next-of-kin (interpreting this as the spouse) did not seem to occur to the proponents of this legislation.

It is a matter of perhaps less general concern, but important to those who are attempting to produce improvements in mental-health legislation, that some of the same groups and individuals are equating large segments of mental-health activity, including psychiatric treatment, with subversive and Communist-inspired movements. A pamphlet published by the "Patrick Henry League" says, "The history written by the Mental Health crowd has been one of subversion of truth, disregard for human rights, and repeated association with Communist causes." A pamphlet previously quoted² defines "psychopolitics" as "the art and science of asserting and maintaining dominion over the thoughts and loyalties of individuals, officers, bureaus, and masses, and affecting the conquest of enemy nations through mental healing." The general idea seems to be that through mental-health organizations and similar groups, thought control can be exerted over

the masses. Eventually their "Moscow-trained masters," masquerading as psychotherapists, will be able to control their thoughts and diminish their resistance to Communistic ideologies, infiltrations and attacks. It may well be also that such dramatizations of Pavlovian conditioning technics as "The Manchurian Candidate" contribute to their fears regarding thought control.

It is my belief that psychiatrists owe it to themselves, their patients and their patients' families to deal forthrightly and honestly with these problems as they arise. It may be easier to maintain a dignified silence, calmly assured that these things will blow over, but the lobbyists on the other side are neither calm nor silent and there is a real danger of obstructive legislation if the accusations are allowed to go un-

challenged. If psychiatrists are not to be caught in the backlash of the chains that Pinel broke in the eighteenth century, it is essential that they become appropriately active on the legislative scene. This is their responsibility to their patients and to the social structure in which they work.

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5. HR 6367 in United States Senate. (An Act to Provide for the Hospitalization and Care of the Mentally Ill of Alaska and for Other Purposes.) January 19, 1956.
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They're Coming From All Over



ISMS Annual Convention May 17-21

Sherman House

Chicago

Experience with the Vacuum Extractor

PAUL E. LAWLER, JR., M.D., THOMAS M. IANNUCCI, M.D., THOMAS BERNAT, M.D., *Evergreen Park*

The Vacuum Extractor devised by Malmstrom of Sweden is essentially a vacuum cup used in place of the forceps in extracting the newborn. It has been used for many years in Europe and is now receiving notice in this country. We wish to report our experience with this method of delivery and to add 50 cases to the literature.

Apparatus

The apparatus consists of a metal suction cup with its attached chain for pulling. Three different cup sizes were used, 3, 4 and 5 centimeters diameter. The suction is created by attaching a rubber tubing from the cup and chain to a vacuum pump. The vacuum is established by manual pumping to a reading of .8 kg/sq. cm., as read by an attached gauge to the vacuum bottle. We recommend creating the vacuum slowly over a 6 minute period to reach the desired .8 kg/sq. cm. Experimentally, we brought the pressure up quickly (i.e. in 1 to 2 minutes) and had less success. Attempt at

extraction with a pressure of only .4 to .6 kg/sq. cm. resulted in an increased number of failures.

Material

The 50 cases used in this series were unselected private patients during the year 1961. The Malmstrom vacuum extractor was used on 31 multiparas with 29 successful extractions. In its use on 19 primiparas there were 11 successful results and 8 failures. By success we mean any suction delivery where the pump remained attached to the fetal head until the latter was completely outside the vagina. There were several instances when the vacuum extractor could be considered a partial success, i.e. when it succeeded in bringing the head down from a midstation to a low or outlet station, thereby making an easy outlet forceps out of a case that could have been a formidable mid-forceps. This was the situation in at least one case of fetal distress.

Indications

The most common indications for applying this instrument was for study purposes and ex-

Little Company of Mary Hospital, Evergreen Park, Illinois.

perience. It was also used for prolonged labor, fetal distress with incompletely dilated cervix and for persistent occiput posterior. We attached the cup to one breech presentation to ascertain its value. In this case the suction pulled off and because of the severe but temporary bruised skin we feel that this presentation along with face varieties should not be extracted with the suction apparatus. In the majority of cases, the fetal vertex was below the ischial spines and therefore the extraction was easy. In the few cases of persistent posteriors where the presenting part was higher we usually experienced failures. These were then delivered not too difficultly with forceps. We found that the single most important factor in preventing failures was keeping the line of pull perpendicular to the cup at all times.

Advantages

There appears to be less maternal soft tissue lacerations. There were no cases of third degree lacerations of the perineum although most of the episiotomies were midline. There were no cervix or vaginal lacerations and no hematomas. It is our impression that a smaller episiotomy is necessary with the vacuum extractor than with forceps. We also believe that the vacuum extractor when necessary is less dangerous to apply to the 8-9 cm. dilated cervix than is the forceps.

Disadvantages

It is unpredictable in that it may pull off before the head is completely extracted. This was the case in our failures.

It requires a longer time than forceps to extract the fetus. This is because it takes from 10-15 minutes to assemble the apparatus and create the desired negative pressure. It also requires an attendant to manually pump to suction bottle. Time may be lost because of the difficulty in slipping the cup's chain into the tubing. At times we have had to use a soap

solution to help solve this problem.

There is some pain to the patient on inserting the suction cup, especially with the primipara. Because of the 6 minutes required to establish a sufficient pressure, we do not give the patient general anesthesia until this has been reached.

There is the possibility of catching the cervix or vaginal mucosa in the suction cup. This happened several times in our series but was of no consequence except that the suction was lost and had to be re-established.

Complications

All newborn delivered showed a marked circumscribed swelling or caput on the fetal head which although temporary caused relative alarm to the parents, the nursing staff and even sometimes to us. Follow-up studies on all these infants showed no residual side effects. There were three complications resulting from the suction cup; one cephalohematoma, one case of a scalp laceration that developed pyoderma, and one case of scalp swelling with vesicle formation that remained on day of discharge. In the usual case the swelling disappears in several hours and the eccymosis within one week. Discussion with the attending pediatrician that saw the infants at 4 or 6 weeks revealed no detectable residuals or sequelae.

There were no maternal complications of significance. There were no third degree lacerations or extensions into the rectum.

Conclusion

As we have stated previously, this is a preliminary report and our series is too limited to draw final conclusions. With more experience we may find that the Malmstrom vacuum extractor can be a great help in difficult extractions, but for the average outlet extraction we found it had too many disadvantages over the forceps to warrant its routine use.

PHYSICIAN-PILOTS ROAR INTO AURORA



READY TO LAND his twin-engined Cessna at Midway Airport during mass evacuation flight exercise, Dr. Brown checks to see if front seat passenger has seat belt properly fastened. New Pilot Orientation Indicator currently being tested by FPA is located at shoulder height on center of instrument panel.



"TALKING THEM IN" from portable stand at Aurora's Municipal Airport are (left to right): Hugh Riddle, John Strauser and Jim Erkins.

IN THEY ZOOMED onto the east-west runway of Aurora Municipal Airport . . . some in slick Bonanzas, others in powerful Cessna "310's," still others in tiny two-place Cubs . . . more than 80 of the total of nearly 2,000 physicians throughout the world who combine their hobby of flying with their profession of medicine in the interest of furthering humane service . . . all converging on Aurora's Hilton Inn, during the week of August 18-23 to participate in the ninth Annual Convention of the Flying Physicians' Association.

"Our convention provided a first-rate capsule review of how the airplane can be used in medical situations," stated Dr. Harold N. Brown, Lombard, Illinois physician and immediate past president of the Flying Physicians Association.

"Take our disaster plan, for example. When aid must come from the outside, the FPA is ready to fly in physicians and supplies at almost a moment's notice.

"This year we have devised a national roster which permits rapid mobilization of our entire membership, if necessary," he added.



PILOT'S EYE VIEW of the 83 airplanes that participated in the joint Flying Physicians Association-United States Air Force Aero Medical Disaster Evacuation demonstration staged at Midway Field, Chicago, Wednesday, August 21.

At the convention high point on Wednesday, August 21, 29 flying physicians took part in a mass evacuation flight from Aurora to Midway and back again.

"The flight went off without a hitch," Dr. Brown explained, "and showed how we can converge on any given point within a short period of time."

Since each physician flies his own plane, no other pilot is needed, making this transportation independent of commercial airlines whose planes probably would be diverted to military or other use.

"Our disaster plan makes doctors and their aircraft available to the government without cost, and has drawn commendation from many officials, including presidents Eisenhower and Kennedy," Dr. Brown commented.

FPA also is becoming a force in aviation safety, particularly for the 600,000 private pilots throughout the country who far outnumber the 2,000 commercial pilots.

"Currently we are testing a Pilot Orientation Indicator that permits reliable and rapid orientation to straight and wings level flight on a known heading without gyroscopic instrumentation or power operated devices," Dr. Brown explained. "We feel this instrument has great potential and we are proud to be leaders in its evaluation."

While safety and disaster medical care are the major concerns of the Flying Physicians as a group, the particular uses to which each physician puts his plane are many and varied.

Neurologist O. V. Baumann of Lewiston, Idaho, transports unconscious patients to Portland, Seattle and Spokane for specialized hos-

pitalization. He puts his plane on automatic pilot and treats the patient en route.

Dr. Sidney R. Goldstone of Gary, Indiana, is within an hour's flight of medical centers and can attend seminars "without my patients missing me."

Dr. Michael M. Mahoney of Auburn, Washington, recently flew into lumber country to evacuate a logger who suffered a crushing injury of leg. Dr. Chester Powell, a Salt Lake City neurosurgeon, flew on a two-hour mercy mission to treat a patient who was brain-injured in an auto accident on a mountain road.

Even basic medical research is carried on from aloft. Dr. Herman A. Heise, a Milwaukee allergist, has shown by collecting pollen at various altitudes that the particles are held aloft by rising air currents during the day but fall out during the night and early morning when radiation cools the air near the surface.

"This phenomenon may explain why many people suffering from hay fever feel fine during the day but go into violent sneezing at night," Dr. Heise explained.

Dr. Brown and his wife, who also is a flying physician, toured Europe by air last year in their twin-engined craft. "It was an adventure in flying," Dr. Brown reflected, "and proved that with proper preparation and equipment such a flight is perfectly safe."

Not all flying physician experiences are dramatic or serious. One doctor told of flying



V.I.P.'s at annual banquet Thursday, August 22 are (left to right): guest speaker Najeeb E. Halaby, Administrator, Federal Aviation Agency; Harold N. Brown, M.D., immediate past president, FPA and chairman, FPA Safety Committee; and Edward R. Annis, M.D., president, American Medical Association.

into a lumber area to certify the death of a man who had committed suicide by hanging. Asked to fly the body back, he propped it up in the front seat. When it persisted in falling forward onto the steering apparatus, he literally had to "rehang him" by putting the rope back around his neck and tying him down.

The exciting and utilitarian combination of flying and medicine is "catching on" throughout the world, Dr. Brown asserted. "We now have nearly 2,000 members from all of the 50 United States and several foreign countries, and are adding new ones at the rate of 30 per month," he added.

Ninety-six Illinois physicians are members.

"To join, you must be a licensed physician, have a private pilot's license, and special 'Blue Seal' instrument rating," Dr. Brown explained.

Any physician interested in joining may obtain complete information from the Flying Physicians' Association national headquarters at 332 South Michigan Ave., Chicago, Illinois.

"Age never should be considered an obstacle in learning to fly," Dr. Brown asserted. "Flying is a matter of mature judgment, not fast reflexes."

Dr. Brown's advice is borne out by the fact that a number of active Flying Physicians are over 70 years old.

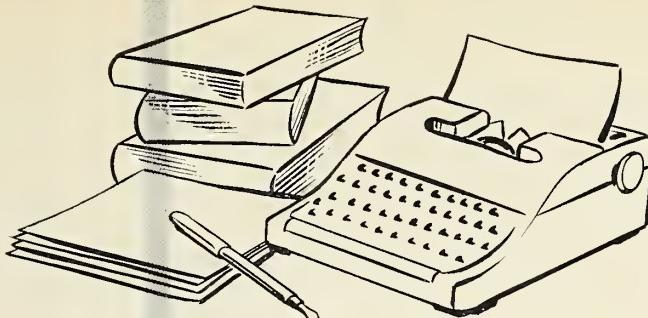
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Editorials

Smallpox Prophylaxis

A new smallpox prophylaxis was reported recently in the *Lancet*.¹ The agent is N-methylisatin B-thiosemicarbazone and is known also as Compound 33T57 or Marboran. The close contacts of established cases in Madras, India were divided into two random groups and one group received the drug and the other was used as controls. Both groups received the vaccine which up to this time has been the standard prophylaxis for smallpox. All were revisited 16 days later to determine the results.

Among 1101 contacts given Marboran, only 3 mild cases occurred. There were 78 cases, 12 of whom were fatal, in the control group of 1126 contacts. In the treated group, the incidence of the disease was reduced by 96 per cent.

Marboran was very effective in protecting smallpox contacts who never were vaccinated or vaccinated only during childhood. It protected also those who were vaccinated too late in the incubation period to prevent the illness.

In every outbreak of smallpox during the past 30 years in England and Wales, the doctors, and nurses, and auxiliary hospital staff have suffered. We have been lucky in Illinois but let us not be lulled into a false sense of security. All hospital personnel, including physicians, should be vaccinated every three years. It might be well for the suggestion to originate in the hospital because the medical profession is famous for its ability to procrastinate.

There were 67 cases of smallpox during the recent outbreaks in England and Wales. Twenty six deaths occurred with a mortality of 39 percent. One of the medical officers suffered a mild attack credited to being vaccinated in

1951. Two others were not so fortunate. A pathologist performed an autopsy on a child suffering from unsuspected smallpox and developed the disease. An obstetrician watched an autopsy on a woman with smallpox who had died in childbirth. They were 37 and 58 respectively. Both were unvaccinated and died.

An interesting sidelight was mentioned in an editorial in the *British Medical Journal*. Some of the well vaccinated hospital staff felt the invasive powers of the smallpox virus. They developed what was termed an "illness of contact." Eleven days after caring for some of the victims they developed fever, headache, nausea, and generalized body pain. All recovered within four to seven days.

The Ministry of Health is not convinced of the value of mass vaccination to control a smallpox outbreak. It usually is done however because of public hysteria. They found that it did nothing to control the outbreaks. But the major objection centered about the diversion of manpower away from the main line of attack—that is, to isolate the case, to trace and vaccinate all contacts, and to maintain effective surveillance.

¹Bauer, D. J., St. Vincent, Leone, Kempe, C. Henry, and Downie, A. W.: Prophylactic Treatment of Smallpox Contacts with N-Methylisatin B-Thiosemicarbazone. *The Lancet* 2:494, (Sept. 7), 1963.

T. R. Van Dellen, M.D.

Actions From Reactions

The Medical Protective Company of Fort Wayne, Indiana, boasts of "exclusive devotion to doctor's defense since 1899 and unparalleled experience from 84,000 professional liability cases." We did not inquire as to the outcome of these cases but did appreciate the booklet,

"Actions from Reactions," prepared by the company. It was written in response to the substantial increase in the number of legal actions for damages against doctors from alleged injurious drug reactions. The booklet might have been called "How to Avoid Medicolegal Problems from the Use of Drugs" or "Be Sure to Read the Precautionary Instructions on the Bottle."

Some physicians may not realize that Congress imposed new requirements on drug manufacturers last year. The onus is now on the physician to use drugs properly because he is being warned about untoward reactions every time he looks at a label or reads an advertisement.

The booklet contains many examples of negligence arising from the alleged usage of contaminated instruments, error in the site or depth of injection, allergy or intolerance to

drugs used, failure to heed warnings of sensitivity by the patient. Other examples include suits arising from prescription errors, burns, overdosage, treatment too conservative, use of wrong drug, reactions from anesthesia, errors in blood transfusions and improper positioning in shock therapy.

It is also risky to talk too much about a lesion because it might lead to cancerphobia. And don't forget to keep abreast of changing drug instruction and always remember that a slight gesture, such as raising the eyebrow or shaking the head, may be misconstrued as a possible error on the part of a colleague who saw the patient previously. Avoid derogatory remarks and unnecessary comments because it may sow the seed for a future medicolegal case.

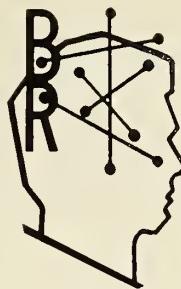
T. R. Van Dellen, M.D.

Have You Completed Your Readership Survey?

Membership response to the IMJ Readership Survey has been most gratifying to date. Over 25 per cent of the Surveys have now been completed and returned. I personally want to thank those who have co-operated by responding to this Journal research program.

Those of you who have not returned the form, please try to do so soon. Help us give you the finest Journal possible.

Jacob E. Reisch, M.D.
Chairman, Journal Committee



Brain Research Foundation, Inc.

39 SOUTH LA SALLE STREET
CHICAGO 3, ILLINOIS

In the September IMJ the purposes of the Brain Research Foundation were stated together with brief comment on the scientific program, its professional and public educational work, its financing and its new project in cooperation with Children's Memorial Hospital. More on each of these items will be said in future Service Page articles.

A few words about the organizational structure and some of the persons who currently work for the Foundation's program may now be of interest.

As a public not-for-profit corporation the BRF provides a base for voluntary participation of lay and professional persons alike. Its basic *membership* is open to all who are interested in brain research, who subscribe to the purposes of the Foundation, who make application for membership, and who agree to pay the annual dues prescribed.

The members elect a *Board of Trustees* which at full strength is composed of 75 members.

A *Board of Directors* of fifteen persons is elected each year by the Trustees. The Directors are charged with responsibility for managing the affairs of the corporation.

Officers

The *Officers* consist of a *President*, currently Mr. William E. Fay, Jr., of Winnetka, a resident partner in the firm of Smith, Barney and Company; *five vice-presidents*, currently Dr. Woodruff L. Crawford, a pediatrician for many years active in medical organization; Dr. Leo G. Abood, of Oak Park, Director of Research Laboratories, Department of Psychiatry, University of Illinois; Mr. Clinton E. Frank, of Winnetka, President of Clinton E. Frank, Inc., advertising agency; Mr. Robert A. Dwyer, of Winnetka, partner in the insurance firm of Alexander and

This service page is prepared and sponsored by the Brain Research Foundation, Mr. William E. Fay, Jr., President and Dr. Woodruff L. Crawford, Vice-President and Chairman, The Scientific Council.

Brain Research Foundation (continued)

Alexander; and Mr. Lawrence J. Linck, of Hinsdale, President of Lawrence J. Linck and Company, management consultants.

The *Secretary* is Mr. John P. Forester, of Lake Forest, a partner in the Chicago law firm of Tenney, Sherman, Guthrie & Howell.

The *Treasurer* is Mr. Robert A. Baldaste of Chicago, Director, Organizational Planning of Employees, Public Relations Department, Standard Oil Company.

A *Scientific Council* of not less than fifteen nor more than thirty-five persons is also provided to determine the nature and scope of the scientific work of the Foundation. The current Chairman is Dr. Woodruff L. Crawford, the Vice-Chairman is Dr. Leo G. Abood and its Secretary is Mr. Lawrence J. Linck. More information on the membership and the work of this body will be reported in coming issues of IMJ.

Annual Meeting

The *Annual Meeting* of the Foundation is scheduled to take place in Chicago on Wednesday, October 30. A luncheon session will be open to the public. (For information write or call the BRF offices.)

The Fifth basic *Scientific Conference* is being planned to take place in Chicago during February, 1964.

Further information about the work of the BRF, as well as tickets for its 1963 Theatre Benefit, "How to Succeed in Business Without Really Trying", are available at or from:

**The Brain Research Foundation
39 South LaSalle Street
Chicago 3, Illinois
CEntral 6-9261**

The address of the Foundation was incorrectly shown as 30 South La Salle Street in the September issue.

Looking For A Place To Practice? Placement Service Lists Openings

More than 275 physicians in the past ten years have looked with appreciation to the Illinois State Medical Society and in particular to the office of the Physicians' Placement Service. Its Secretary, Mrs. Robert Swanson has assisted them in finding a town in Illinois needing a physician.

In an effort to further reduce the number of physician-less towns in the state, the *Journal* will periodically publish synopses submitted by the towns themselves to the Placement Service. Inquiries are encouraged by physicians who themselves are seeking a place to practice or who know any out-of-state physicians seeking an Illinois residence.

Information and comments are also requested from physicians living in areas nearby the existing vacancies as to the actual need in each of the openings and the ability of the town to support a physician.

A few of the openings which now exist include:

Bureau County: Neponset, population 520. Estimated population trade area: 2200. Community without a physician since July 15, 1963. Nearest physicians at Kewanee, Sheffield and Princeton 8, 6 and 20 miles. Nearest hospital at Kewanee, 9 miles. Nearest large city—Peoria—50 miles. Fully equipped physician's office for sale or rent. Local Chamber of Commerce will arrange for financial assistance if desired. Agricultural area—2 industries.

Cass County: Virginia, population 1659. County seat. Located at Junction of US 67 and state routes 125 and 78. Last physician moved recently in order to specialize. Jacksonville physician is keeping office hours 6 hours weekly. Full time physician badly needed in addition to part-time service. Population of trade area—6500. Several small towns in trade area without physicians. Nearest physicians at Ashland, Jacksonville and Beardstown. 36 miles from State

Capitol. Ground floor office spaces available. Agricultural area.

Green County: Greenfield, population 1100. Estimated population of trade area—7500. Several small towns in trade area without physicians. Only physician recently moved to Texas after practicing here for 15 years. (Health reasons). Nearest physicians at Carrollton, Carlinville and Jacksonville, 14, 22 and 29 miles. Nearest hospital at Carrollton. Nearest large city, St. Louis, 60 miles. Excellent office space available. Office equipment for sale if desired. Financial assistance can be arranged if desired. Agricultural community.

Pulaski County: Ullin, population 800; estimated population of trade area, 1450. Town without a physician for several years. Nearest hospitals at Anna, Illinois and Cairo, Illinois, 16 and 21 miles respectively. Office space and living quarters available for physician. Financial assistance could be given a physician who desires same. Principal sources of income in area: timber industry, rock quarries, grain and livestock.

Union County: Jonesboro, population 1700. County seat. Several small towns in trade area without physicians. Jonesboro without a physician since spring of 1960. Nearest hospital at Anna, 3 miles. Slightly over 100 miles from St. Louis. Office facilities: building available vacated by the post office, which was moved into a new federal building. Owner will arrange for this building to meet a doctor's requirement. Principal sources of income: agriculture, livestock, lumber mills and a shoe factory in neighboring town.

Inquiries and comments should be directed to: Mrs. Robert Swanson, Secretary, Physicians' Placement Service, Illinois State Medical Society, 360 North Michigan, Chicago 1, Illinois.

Mr. Harold Widmer, ISMS Legislative Representative, who is frequently in the field also has a listing of openings in the State. He may be contacted when he is in your area or the ISMS Springfield office.



PEDIATRIC SURGERY. Orvar Swenson, M.D., Second Edition. \$20.00, pp. 779, New York, Appleton-Century-Crofts, 1962.

This new edition of a well-rounded text book on pediatric surgery contains a revised and enlarged section on cardiac surgery, including the use of extracorporeal circulation.

The remainder of the text is unchanged, containing lucid descriptions of most facets in the field of pediatric surgery and including short sections on fractures, plastic surgery and problems in bronchoscopy and esophageal dilatation. Of course, the section on Hirschsprung's disease is authoritative, and the extensive section of almost 200 pages on pediatric urological problems covers a frequently neglected field.

The book is clearly written and well illustrated with photographs, x-rays and diagrams of operative procedures. It would be useful, primarily, to any physician dealing with surgical problems in infancy and childhood. The volume is also a handy reference book for the student and house staff involved in pediatric care.

William L. Riker, M.D.

THE MANAGEMENT OF A MEDICAL PRACTICE. Alan E. Nourse, M.D., and Geoffrey Marks, M.A. \$9. Pp. 387, Philadelphia, J. B. Lippincott Company, 1963.

The introduction discusses the well-known fact that medical students and interns are taught something of scientific medicine, somewhat less of the art of medicine and nothing at all regarding the social-economic side of medicine. They say, "We shall develop certain criteria of successful medical practice and propose a philosophy of practice management which, if applied ideally, will fulfill ideally the true needs and motives both of patients and of their doctors." While the book hardly lives up to this promise, it does present a number

of ideas which most physicians could apply in their own practice.

The book is divided into seven parts. The first deals with (A) The Problem of practice; (B) The areas of grievance (this is handled very well); (C) Public relations and practice management — the factors contributing to a successful practice — a philosophic basis for practice management. This section is skillfully written. It will particularly appeal to men who place a larger value on clinical observation than they do on strictly laboratory procedures.

Part 2 is headed "Patient Management: Basic Techniques." This is not as well done as the preceding part, and the man beginning practice will find in it little of value.

Part 3 is entitled "Patient Management: Refinements and Adaptations." It is of no great value.

Part 4 "Locating in Practice." This discusses the ideal location and the advantages of solo versus partnership or group practice. It is very well done.

Part 5 "Office Management in a Medical Practice." This is discussed under four headings: (A) Creating a proficient medical staff, (B) The mechanics of office management, (C) Fair compensation and a basis for fees (this is something any doctor can read with advantage), and (D) Building and maintaining an office reference library.

Part 6 "Estate Planning, Personal Finances and Insurance" contains a very good discussion of insurance.

Part 7. "Summary and Conclusion."

The authors discuss at some length ownership vs. renting. They demolish the idea that owning a home is definitely cheaper and more advantageous than renting one. Any doctor contemplating the building or purchase of a home could profit by reading this discussion.

Throughout the book there is very little in the philosophy of the authors with which conscientious

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WILLIAM H. RORER, INC., FORT WASHINGTON, PA.

physicians would disagree. They advance a number of arguments against socialized medicine that are rather better taken than most objections that one reads either in the press or in articles from doctors' pens.

While in spots there is a rather obvious plea for the office management consultant and the advantages that would accrue from his employment, the book on the whole, is very well done and most doctors could read it with considerable profit.

James H. Hutton, M.D.

PULMONARY STRUCTURE AND FUNCTION. Edited for the Ciba Foundation by A.V.S. De Reuck and Maeve O'Connor, \$11.50, Pp. 403. Boston: Little, Brown and Company, 1962.

This volume presents the transactions of a three day symposium held in July, 1961, held under the Chairmanship of J. McMichael from the London Post-graduate Medical School.

Spread across the 400 pages of readable print and clear illustrations are to be found the opinions of 29 authorities who hail from the United States, Britain, Austria, France, Germany and Sweden. The material is divided into 18 chapters which are in effect papers on particular subjects. There follows a record of the comments made in discussion.

The topics cover pulmonary anatomy as well as physiology, both normal and pathologic. Included are discussions of bronchial mucus, the glomus pulmonale, gas exchange in the lung as determined by the use of radioactive gases, methods of study of lung pathology, notably emphysema, etc.

This is not, therefore, a "manual" that would be of interest to a practicing physician, nor was it so intended. Rather, interest in this book will be largely confined to clinicians or physiologists, who, well acquainted with pulmonary processes, want an authoritative exposé of the more advanced thinking in the field or to be more exact, a view of the frontiers in research. To this end it serves admirably.

Hiram T. Langston, M.D.

MEDICAL LABORATORY TECHNOLOGY. M. J. Lynch, M.D., et al. \$12. Pp. 735. Philadelphia, W. B. Saunders Co., 1963.

This text is a compilation of various technical procedures employed in the hospital laboratory in the various disciplines in clinical pathology. It is compiled by two pathologists with the assistance of four technologists, experts in their respective fields.

This text is divided into four sections. Section One covers general knowledge and chemical pathology and contains important information for the medical technologist working in the laboratory, in handling the equipment and apparatus, as well as the care of the microscope, the preparation of various chemicals used for diagnostic purposes and the care of laboratory records. There is a discussion of chemical analyses, kidney function tests, examination of the urine and gastric contents, concluding with liver function tests, general chemical pathology and endocrine investigation.

The second section is on hematology and covers multiple facets, including organization and operation of the blood bank. The third section is on microbiology and includes discussion on antibiotic sensitivity, as well as mycology and parasitology. The fourth section is on histologic techniques, including frozen sections, staining and cytologic examination.

The text is offset printing, in double space, and all the photographs are in black and white. Many a physician and technologist would have great difficulty in identifying these illustrations, although there is a description of each; where the nucleus ends and the cytoplasm begins, where there are platelets or inclusion bodies, is difficult to determine. The techniques described are the usual and accepted procedures used in most institutions.

There is a short, thumbnail sketch of the physiologic, and at times medical, interpretation of the various disease processes where biochemical or bacteriologic examination may be indicated. This text is useful primarily for the technologist. The informed physician and medical student will have to resort to other texts in the field of clinical pathology that will aid them in a more comprehensive understanding of the basic sciences in relationship to clinical medicine.

S. A. Levinson, M.D.

For a good night's sleep without barbiturate side effects: **Doriden** (glutethimide)

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New Service in Syphilis Serology

The Chicago laboratory of the Illinois Department of Public Health is now performing fluorescent treponemal antibody tests. This procedure is of value primarily in those cases in which standard lipoidal tests (VDRL, Kahn, etc.) are reactive without any clinical manifestations of syphilis. Many other special tests have been devised over the years which gave promise of a dependable diagnosis in such cases, but most of them have been disappointing and were discarded.

The treponemal immobilization (TPI) test, the fluorescent treponemal antibody (FTA) test and the Reiter protein complement fixation (RPCF) test are among those still being hopefully employed. The RPCF procedure has been in use in the Department's laboratories in Springfield and Chicago for approximately two years and will continue to be offered until further notice. The TPI test is obtainable only on specimens submitted through the state health department laboratories to the Communicable Disease Center Laboratory of the U. S. Public Health Service in Atlanta, Georgia.

All of the above tests are available on a limited basis only. This is partly because of their relatively high cost but partly also because in many instances the standard lipoidal methods will furnish more information. For this reason a history form should be filled out and submitted with each specimen on which one of these special tests is requested. For a TPI test a blood specimen must be submitted in a special outfit which contains a sterile tube stoppered with a paraffin-coated cork. Both the history form and special mailing outfit will be furnished on request to the State Health Department laboratories. For FTA and RPCF tests the regular mailing outfit employed for routine serological specimens is suitable if the history form also is used.

None of these tests can be regarded as giving a completely authoritative laboratory diagnosis. All three tests may occasionally give positive reactions with sera from apparently normal individuals and in some instances are found to react negatively with sera from known syphilitics.



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A potent analgesic and
a superior muscle relaxant

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PULSE

of the Illinois State Medical Society

and *Illinois Auxiliary News*
Illinois Medical Journal



October, 1963

A Service of the Public Relations Division

Medical Self-Help Progress Report

Three Weeks to Go—Requests Already Pouring In!

Is it possible to enroll 10,000 Chicago area residents in the ISMS Medical Self-Help Training course?

"From the looks of things to date, it certainly is possible," declared Dr. Max Klinghoffer, ISMS Disaster Medical Care Committee chairman and narrator of the 16-week television series.

"We're still three weeks away from our first telecast, and already enrollment requests are rolling in from individuals, groups and organizations throughout the Chicago area," Dr. Klinghoffer stated.

Medical Self-Help—designed to train one member in every family to handle medical emergencies—is being broadcast as a certified television course over station WTTW, Channel 11 at 8:30 p.m., Thursday evenings. The series started October 10 and will continue for 16 weeks.

"Our promotional program is geared to two fronts, enrolling the individual and enrolling groups and organizations," Dr. Klinghoffer explained.

Literally hundreds of organizations in Cook, DuPage, Elgin, Grundy, Joliet, Kane, Kendall,



"HERE'S WHAT A BROKEN ARM LOOKS LIKE," explains medical makeup magician Dr. Max Klinghoffer (center), as he prepares young "victim" for demonstration on ISMS' 16-week "Medical Self-Help Training" TV series which began October 10 on Station WTTW, Channel 11. Dr. Klinghoffer, who narrates the series, is chairman of the ISMS Disaster Medical Care Committee. Young man generously offering his left arm is Steven Ford, son of staff member Allan Ford. Interested onlooker is Mrs. John Malcolm Tindal, Civil Defense Chairman of the ISMS Woman's Auxiliary. The auxiliary is playing an important role in promoting the course and soliciting for enrollment among Chicago area organizations and individuals.



"PROMOTIONAL AMMUNITION" for MSHT program included this attractive brochure, sent to individuals and organizations.

Lake, McHenry and Will counties have been sent descriptive brochures and a covering letter offering special group enrollment.

"This phase of the promotion could not have been accomplished without the assistance of the Woman's Auxiliary, which compiled the mailing list as well as addressed and stuffed hundreds of envelopes," Dr. Klinghoffer declared.

Promotion to individuals included a half page ad in the TV section of the Chicago Tribune during the first week of October, and news releases to all of the Chicago area dailies and weeklies. "The columnists also have been asked to mention the course in their columns and give specific directions for enrolling," Dr. Klinghoffer said.

Future promotional plans call for newspaper, radio and television coverage of Chicago's Mayor Richard J. Daley and Chicago Board of Health Commissioner Dr. Samuel Andelman enrolling in the course.

1963-64 AMA-ERF Program: Challenge and Accomplishment



MEMBERS OF THE ST. CLAIR AUXILIARY were the hostesses at a special tea recently for the presentation of nursing scholarships. Dr. Willard Scrivner (left), president of the St. Clair County Nurse Scholarship Association, makes a presentation of a \$400 scholarship to student nurse Mrs. Amelia Wilder (third from left). Looking on (from left to right) are: Mrs. Mildred Rongey, Future Nurse Association Counsellor at the East St. Louis High School; Mrs. Joseph Peters, President of the Opti-Mrs. Club; Mrs. Everett Smart, Girls' Work Chairman of the Club and Oluf Hensen, Treasurer of the Nurse Scholarship Association. The Association, set up to obtain financial assistance for nursing students and to promote nursing as a career, and the Opti-Mrs. Club jointly donated the scholarship.

LEGISLATION LEADS

Now that we have gotten our "second wind" with the brief summer respite, action must be planned for the legislative arena.

Quoting from a letter from Mrs. Joseph Leonard, Legislative Chairman, AMA Auxiliary, "Welcome to a team that has a woman-sized

job ahead, one that will call for studious attention to facts and figures, original thinking and initiative and enlisting 100 per cent of our membership as well as the population at large."

We have had recognition from the House of Delegates, ISMS, for our efforts during the past year, but along with it is a request to "Keep Up the Good Work". You will be hearing more about specific jobs to be done, about "Operation Hometown" timing for stepped-up action against King-Anderson Legislation.

Again, quoting from Mrs. Leonard—"REMEMBER—It takes only one day in Washington to undo the hard-won freedom we have enjoyed for nearly two hundred years. (The price of constant surveillance to preserve our freedom is a small one to pay.)"

Seek New Members

Mrs. Willard C. Scrivner, president-elect, is asking her county membership chairmen "to be especially alert this year concerning prospective members. Please do everything you can think of, and then go beyond the usual routine recruitment methods.

"Mrs. John M. Chenault, our national Membership chairman, has given us an effective guide. 'If our Serve and Communicate force is to be effective, we need maximum mobilization, and this is the primary responsibility of the Membership Committee'."

**Mrs. Walter Shriner
Legislative Chairman**

Excerpts from Mrs. J. S. Lundholm's letter to county chairmen:

. . . Each year the challenge of AMA-ERF seems more important, for the need grows greater.

. . . Without the individual help of all the dedicated County chairmen, we could accomplish nothing.

. . . It is time for us to take concrete action in fighting for freedom in our medical schools.

. . . We plan to continue the project of selling Hampton's personalized Christmas cards and stationery. We also have the opportunity of selling Heath's double-dipped chips, \$1.00 a box, profit 40%.

. . . Let's join hands, determined that Illinois will increase its efforts and its contributions.

At the State Convention last May, ERF awards went to:

Winnebago Co. for largest amount contributed.

Cook Co. for second largest amount contributed.

Crawford Co. for largest amount in counties of fewer than 25 members. (Crawford Co. has 13 members, raised \$1070.20, and went on to receive the national award at the AMA convention.)

"Milestones to Maturity"

Shortly before Crawford County schools opened on August 29, the five Crawford County newspapers carried the news that **MLESTONES TO MATURITY**—published by the Louisiana Association for Mental Health—had been purchased by the Crawford Co. Woman's Auxiliary to the Medical Society to be distributed to the principals, teachers, and coaches and to the freshmen of all four high schools (432 freshmen). The book has been approved by the AMA for distribution to high school students to help them understand their responsibilities as young adults. Mrs. John Hippenstein, of Robinson is chairman of the Auxiliary Committee on Mental Health.

**Winnebago Society, Rockford College Co-sponsor
Education of Dr. Tom Dooley's Protege**



HOANG VAN NGOAN (left) talks with the late Dr. Tom Dooley at the jungle hospital in Laos. Also shown is Dwight Davis, an associate of Dr. Dooley.

Six Ways YOU Can Help Community Health Week

Generally, any activity you undertake which focuses attention on the excellent medical and health facilities available in our communities will help to achieve the underlying purpose of Community Health Week.

Specifically, here are six ways in which you can actively help:

1. **PARTICIPATE** in the planning of a medical health fair in your community. If none is being planned, suggest it to your local chamber of commerce.

2. **OFFER** your services as a speaker on a local radio or television interview discussing health problems.

3. **STIMULATE** promotional activity of voluntary health organizations in your community with which you may be affiliated or in which you may have an interest. Suggest that they run an ad in the local newspaper, exhibit at a health fair or in some public gathering place, or "kick off" Community Health Week with a concerted educational, enrollment or fund-raising campaign.

4. **COOPERATE** with your local health department in mass immunization or other programs it may be planning for Community Health Week. If it does not plan such a program, suggest that the department do so.

5. **SUGGEST** some tie-in activity to your local chamber of commerce, such as an automobile seat belt installation drive.

6. **TALK** to your patients about Community Health Week. Emphasize that good health is a community responsibility as well as a community achievement, requiring their active participation in planning and meeting present and future health needs.



Matthew B. Eisele, M.D., Chairman
Sub-committee on Community Relations

"I hope to be worthy of a degree in medicine. However, if I do not succeed I will take whatever I learn back to my country and carry on the work started by the late Dr. Tom Dooley. We lost Dr. Dooley's compassion, love and gentleness, but we have his ideas now."

Thus did Hoang Van Ngoan of Laos, former aide and protege of the late Dr. Tom Dooley, address the first fall meeting of the Winnebago County Medical Society Friday, Sept. 13, and reveal himself as a young individual dedicated to serving his fellow man.

Physician members of the county society and Rockford College will jointly sponsor the pre-medical training of Hoang Van Ngoan.

Speaking of his past, Ngoan said that "my birth date is not on record, but it's generally believed I was born in 1942, in North Viet Nam."

One day, he recalled, "My parents and my village were taken over by Viet Minh. I remember my teacher's cry: 'Communists coming—all children must escape.' I never saw my parents again."

In 1953, Ngoan went to Hanoi, capital of North Viet Nam, with thousands of other refugees. After moving to Laos in 1954 and wandering aimlessly without hope for four years, he met Dr. Tom Dooley, and went to work with him as an interpreter.

"I did mostly translating for the doctors," Ngoan recalled, "but also I gave anesthesia and even helped deliver babies."

When the television program "This Is Your Life" honored Tom Dooley, it also brought Ngoan to this country. Through the efforts of Dr. Dooley, television producer Robert Northshield and the U.S. State Department, Ngoan officially was declared a Laotian and issued a passport.

Since December, 1959, Ngoan has been living in the Northshield home and attending Scarborough school at Scarborough-on-Hudson.

Ngoan intends to take a pre-medical course at Rockford College. He said, "I hope to return home with a knowledge of medicine to help the destitute and sick people of my country."

Oral Cancer Program Forms New Interprofessional "Link"

ISMS plaudits for the new oral cancer detection program begun last month by dentists in the Chicago area may form a bright new "link" of professional cooperation between the medical and dental professions in Illinois.

The new \$100,000 program—sponsored by the U.S. Public Health Service, the Chicago Board of Health, and the University of Illinois College of Dentistry in cooperation with the Chicago Dental Society—provides pap smear kits to Chicago dentists enabling them to take scrapings of suspicious mouth lesions.

Commending the program, Dr.

J. Ernest Breed, Chicago radiologist and ISMS trustee, said "ISMS is pleased to note the efforts of these organizations in working to discover oral malignancies at an early stage.

"Unfortunately, very early oral cancer is symptomless and is apt to reach an advanced stage before the patient becomes aware of it.

"Although becoming more common, oral cancer is comparatively rare and seldom seen by dentists, so that the tendency is not to recognize early lesions.

"This new study, however, should re-focus the attention of dentists, as well as physicians and

patients, on the problem of oral cancer."

(Dr. Breed's editorial on oral leukoplakia appears on page 330 of this issue.)

Tests taken within the city will be sent to the Chicago Board of Health pathologists for examination, while specimens obtained by dentists in the suburbs will be sent to the University of Illinois. If a suspected cancer is received, the patient is referred to a physician.

No additional charge is made for the examination.

Dr. Richard W. Tiecke, assistant secretary of the council on dental therapeutics and chairman of the Joint Oral Cytology Advisory Board supplying the kits, will describe the new oral cancer detection program on a forthcoming ISMS "Medical Interview" broadcast by 27 radio stations downstate and by WGN in Chicago.

"I am pleased to cooperate with the medical profession in Illinois to communicate this important program to the public," Dr. Tiecke said.

\$10,000 Donation Launches Vermilion County Fund

A welcome assist to the advancement of medical education in Illinois came last month in the form of a \$10,000 dollar donation to the Vermilion County Medical Society by a Danville resident who wishes to remain anonymous.

"The donation has made possible a fund which may be used by Danville area students in medical school now or in the future," stated Dr. Harlan English, Danville, president of the Illinois State Medical Society and member of the three man committee administering the fund.

"The total of loans available from the fund actually could be as high as \$120,000," Dr. English explained. "Banks have stated they will guarantee \$12 in loans for each dollar security in cash put up by the committee."

Citing examples of where a loan might be needed, Dr. English said "Perhaps a student is making poor grades in medical school because of working too many jobs to support his education. The loan fund would allow more time for study.

"Too, the fund will be of particular value to married students with children who find it too much of a financial burden to continue in school."

Other instances cited by Dr. English include the student receiving financial assistance from his parents, then illness strikes the family and makes continuing assistance difficult.

Those borrowing from the loan, Dr. English stated, must actually be enrolled in a medical school, must have a financial need, and they must reside within a 50-mile radius of the Danville Redden Square.

Joint Conference



DR. HARLAN ENGLISH (left) Danville, president of the Illinois State Medical Society, joined William R. Williams, (right), Hinsdale, president of the Illinois Hospital Association, in greeting the nearly 250 Illinois hospital officials who attended a day-long conference of the two organizations in Peoria on Thursday, Sept. 26. The conference—fifth such annual event held in Illinois—explored the problems of comprehensive care in the general hospital. Co-sponsor of the event this year was the Illinois Department of Public Health.

NEWS and ANNOUNCEMENTS



Diabetes Screening

The Diabetes Association of Greater Chicago will offer its annual Diabetes screening program Nov. 17 through Nov. 23. The Drey-pak envelopes will be distributed to the public by cooperating hospitals and pharmacies. Individuals exhibiting glycosuria will be so informed and urged to consult their own physicians. The physician is an indispensable link in the Diabetes Detection Program. Only he can make the diagnosis of diabetes. A repetition of the screening urinalysis in the doctor's office regardless of the results is inadequate. The two hour post-prandial blood sugar or glucose tolerance test is strongly advised. The diagnosis of Diabetes Mellitus may be made if the former exceeds 120 mg. per 100 ml. (true glucose). Lower values suggest the need for the glucose tolerance test to clarify the diagnosis. The diagnosis of diabetes may be made when any three values exceed the following: Fasting—110, one-half hour—170, two hours—120, three hours—110. If only two values are excessive, diabetes is probable. A family history of diabetes warrants periodic examinations for glycosuria and hyperglycemia.

Diabetes Detection Committee
Henry L. Wildberger, M.D.,
Chairman
Diabetes Association of
Greater Chicago

Hospital News

A \$375,000 addition to the Chicago unit of the Shriners Hospitals for Crippled Children was dedicated recently. The 68-bed facility is located on the Northwest side.

The new one-story, 8,000-square-foot addition on the east side of the hospital contains two new classrooms, a combination auditorium-

recreation room and enlarged physical therapy facilities.

Some 10,000 square feet of the original hospital building has been remodeled and enlarged as a clinic. This area contains six new examination rooms, a consultation room for physicians, physical therapy and x-ray facilities.

Presbyterian-St. Luke's Hospital also dedicated new facilities during the past month. The new \$2,000,000 Health Center clinic area located on the West side will replace many of the older clinic areas which have been in constant use for nearly 80 years.

Appointments

The Governor has recently completed appointments for two state committees. Physician members of the Advisory Board on Necropsy Service to Coroners in the Illinois Department of Public Health are Dr. Edwin F. Hirsch, and Dr. Andrew J. Toman, Cook County coroner. Recently appointed to the board of Public Health Advisors, Department of Public Health include Dr. E. A. Piszczeck, ISMS' President-elect, Dr. John A. D. Cooper and Dr. August Daro.

M.D.'s In The News

Dr. Louis B. Newman, chief of physical medicine and rehabilitation service, Chicago Veterans Administration Research Hospital has been awarded the Gold Key award of the American Congress of Physical Medicine and Rehabilitation, that organization's highest honor.

Medical Fraternity Jubilee

The Alpha Kappa Kappa medical fraternity recently celebrated its 75th anniversary at its

Chicago convention. The fraternity was founded at Dartmouth Medical School in 1888.

Dr. Harlan English, president of ISMS, welcomed the fraternity and Dr. William Adams, professor and chairman of the Department of Surgery at the University of Chicago School of Medicine, delivered the Cook Memorial Lecture. Dr. Warren McPherson, Chicago, became Grand President of the organization.

U. S. Infant Mortality Increases

The United States slipped from 10th to 11th place in 1962 in infant mortality rates among 15 countries. Still at the top of the list of nations with low infant mortality rates are the Netherlands and Sweden. No state in the Nation had an infant death rate as low as these nations. The lowest rate in this country was in Utah (20.3 per 1,000 live births) which was about a third higher than rates in Netherlands and Sweden. The United States rate was 25.3 per 1,000 live births. The Department of

Health, Education and Welfare figures for state rates lists Illinois' 1961 rate as 24.3 per 1,000 live births.

Grants

New electronic instruments adapted from those developed for space flights will be used in a unique research project to find what happens in the brain as brain damaged children try to learn. The research will be financed by a \$30,000 grant of the Easter Seal Research Foundation to Northwestern University.

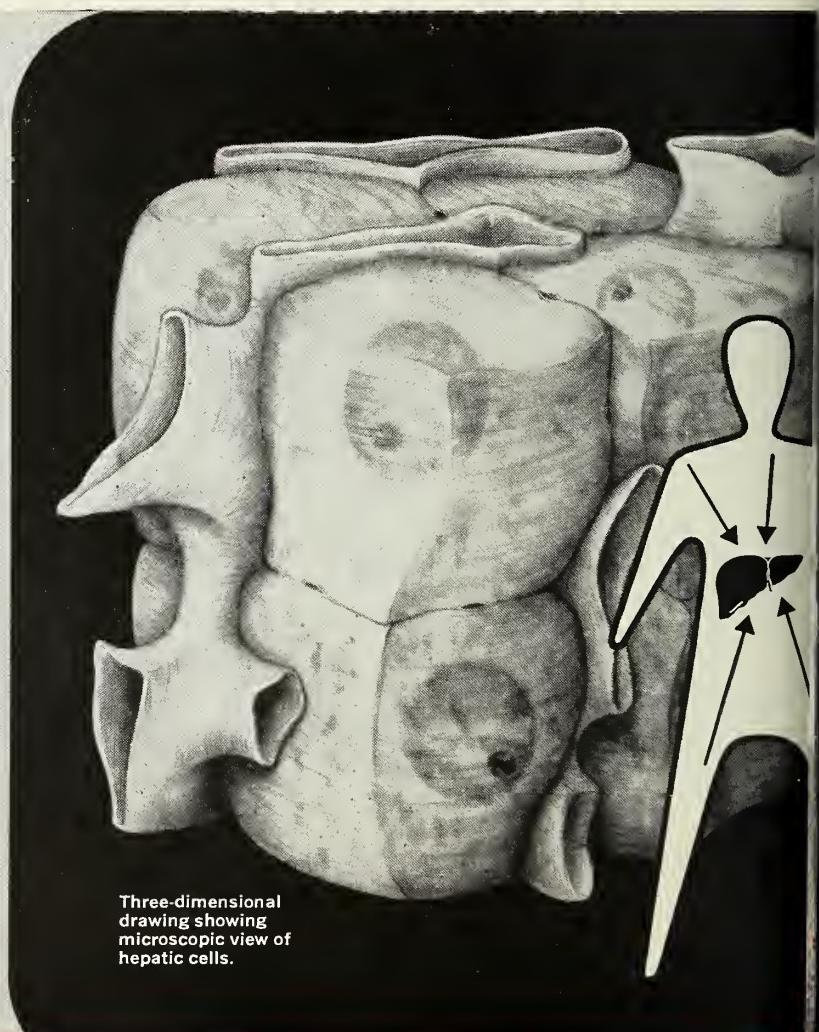
The instruments will enable researchers under direction of Dr. Helmer R. Myklebust, professor of language pathology and psychology, to record actual brain wave patterns of 325 children now under treatment at the University's Institute for Language Disorders.

The University of Chicago has been awarded a \$36,000 grant by the Maurice Falk Medical Fund, of Pittsburgh, to establish a new training

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Illinois Sniffles

The common cold continues to be the largest single factor contributing to the 24.6 days per school year the average Illinois student is absent from school, according to a study by the Schering Corporation.

Using statistics from the National Education Association, the study reveals that Illinois ranks 42nd in days attended per pupil. The best attendance record for the 1962-63 school year was set by the state of Washington with an average of 10.5 days missed. Utah was second with 11.2. The national average of school absences was 18.9.

Tetanus Immunization

The American Medical Association is estab-

lishing an intensive and continuing campaign to improve the immunization of the American people against tetanus. This program started in September 1963, and will consist of public and professional education urging the public to get, and renew, inoculations with tetanus toxoid.

Tetanus, formerly called "lockjaw," is completely preventable. The armed services, who provide tetanus immunization routinely, rarely have a case. During recent years an average of 400 cases annually have occurred in the United States. About sixty per cent of those afflicted have died. All of these deaths were unnecessary.

The death rate from tetanus is highest among young children. Emphasis therefore should be placed on inoculating them in infancy. Usually this is done with "triple vaccine," including diphtheria and whooping cough along with tetanus toxoid. Three injections four weeks apart, and a booster dose within 6 to 12 months, will establish immunity.

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LIVER CONCENTRATE AND DESICCATED LIVER**	. .	0.78 Gm.

*Present in syrup as 1.14 Gm. Choline Chloride

**Present in syrup as 1.2 Gm. Liver Concentrate

capsules: 100, 250, 500, 1000; syrup: 16 oz. and 1 gallon

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ANNOUNCEMENTS

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Q-7

Lecture Series

The Eighth Series of Lectures of the International College of Surgeons' Hall of Fame began early this month with "The History and State of Plastic Surgery in England" by Professor Patrick Clarkson, co-president of the British Section of the College. Nov. 12 Professor David Bakan, Professor of Psychology, University of Chicago will lecture on "Freud and Jewish Mysticism".

PG Courses

"Recent Advances in Internal Medicine" will be the topic of a post-graduate education program of the Cleveland Clinic Foundation, Nov. 13-14. Further information is available from the Secretary of the Foundation, 2020 East 93rd Street, Cleveland, Ohio.

The American College of Chest Physicians will offer a postgraduate course "Recent Advances in the Diagnosis and Treatment of Diseases of the Heart and Lungs" in New York, Nov. 11-15. Further information is available from the College, 112 East Chestnut Street, Chicago 11, Illinois.

ATS Research Grants

Applications for research grants awarded by the American Thoracic Society, medical section of the National Tuberculosis Association, will be received between now and December 15, 1963. Grants will be awarded for medical and social research in the field of respiratory diseases, including tuberculosis, for the year beginning July 1, 1964. For further information and forms, communicate with: Division of Research & Statistics, American Thoracic Society, 1790 Broadway, New York 19, New York.

Films

"Colleagues in Close-Up," A. H. Robins Company's closed-circuit telecast viewed last April 24 by physicians in 60 cities, is available in 16 mm kinescope films, according to an announce-

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ment by the Richmond, Va., ethical pharmaceutical manufacturing firm.

The three sections of the telecast were concerned respectively with surgery, hepatic disease, and heart disease and hypertension. Films of each section, about 30 minutes in running time, are available separately, or combined as in the original 90-minute telecast.

Crippled Children's Clinics

- November 1 Chicago Heights (Cardiac)—St. James Hospital
- November 5 Danville—Lake View Hospital
- November 5 Pittsfield—Illini Community Hospital
- November 6 Fairfield—Fairfield Memorial Hospital
- November 6 Hinsdale—Hinsdale Sanitarium
- November 7 Peoria (Cerebral Palsy)—Roosevelt School
- November 7 Sterling—Community General Hospital
- November 12 East St. Louis—Christian Welfare Hospital
- November 12 Peoria (General)—Children's Hospital
- November 13 Champaign - Urbana—McKinley Hospital
- November 13 Joliet—Silver Cross Hospital
- November 14 DuQuoin—Marshall - Browning Hospital
- November 14 Macomb—St. Francis Hospital
- November 14 Springfield (General)—St. John's Hospital
- November 15 Chicago Heights (Cardiac)—St. James Hospital
- November 19 Alton (General)—Alton Memorial Hospital
- November 20 Centralia—St. Mary's Hospital
- November 20 Evergreen Park—Little Company of Mary Hospital
- November 20 Springfield (Cerebral Palsy p.m.)—Memorial Hospital
- November 21 Decatur—Decatur & Macon Co. Hospital
- November 21 Effingham (Rheumatic Fever & Cardiac)—St. Anthony Memorial Hospital
- November 21 Elmhurst (Cardiac)—Memorial Hospital of DuPage County

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- November 21 Rockford—St. Anthony's Hospital
November 26 Peoria (General) — Children's Hospital
November 27 Elgin—Sherman Hospital

Fellowships

The Association of American Medical Colleges has announced that Smith Kline & French Foreign Fellowships for Medical Students will be awarded again next year. The Fellowships provide approximately 30 students with the opportunity to assist and observe physicians for at least 10 weeks, at rural medical stations in remote and underdeveloped areas of Latin America, Asia, Africa, and Oceania.

The Association is now accepting applications from junior and senior medical students for the Fellowships and application forms and brochures have been sent to all medical school deans. The closing date for submitting applications is December 31, 1963.

The Alfred A. Richman Fellowship for Chest Diseases has been established by the Council on International Affairs of the American College of Chest Physicians.

This fellowship will make it possible for physicians to pursue postgraduate study in an approved institution of their choice for a period of one year.

The fellowship provides for a grant of \$100 per month for a period of 12 months.

The selection of candidates will be under the supervision of the Council on International Affairs of the College. For complete information, applicants are requested to write to the Council c/o American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois, U.S.A.

Hippocrates Monument

A benefit for the planned monument to the "Father of Medicine" will be held Oct. 21 at Orchestra Hall. Featured attraction will be the "Paedia"—the little singers, dancers and musicians of Greece. The monument is planned for the grounds of the University of Illinois campus in the West Side Medical Center. Tickets and information are available from the fund headquarters offices, 509 North LaSalle Street, Chicago.

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Meeting Memos

- American Association for the Surgery of Trauma, San Francisco, Oct. 24-26.
- Association of American Medical Colleges, Chicago, Oct. 24-30.
- American Heart Association, Los Angeles, Oct. 25-29.
- American College of Surgeons, San Francisco, Oct. 28.-Nov. 1.
- Interscience Conference on Antimicrobial Agents and Chemotherapy, Washington, D.C., Oct. 28-30.
- American Clinical and Climatological Association, Hot Springs, Va., Oct. 31-Nov. 2.
- American Epilepsy Federation, Evansville, Indiana, Oct. 31-Nov. 1.
- Central Society for Clinical Research, Chicago, Nov. 1-2.
- American Society of Anesthesiologists, Chicago, Nov. 2-8.
- National County Medical Societies Conference on Disaster Medical Care, Chicago, Nov. 2-3.
- Phlebology Society of America, New York, Nov. 2.
- American Association of Blood Banks, Detroit, Nov. 3-6.
- Association of Military Surgeons, Washington, D.C., Nov. 4-6.
- American Society for Cell Biology, New York, Nov. 6-8.
- American Society of Tropical Medicine and Hygiene, Chicago, Nov. 6-9.
- Gerontological Society, Boston, Nov. 7-9.
- American School Health Association, Kansas City, Mo., Nov. 9-15.
- American Fracture Association, Miami Beach, Nov. 10-15.
- Illinois Nursing Association, "Care of the Chronically Ill," Aurora, Illinois, Nov. 15-16. Dr. Louis B. Newman, chief of the physical medicine and rehabilitation service at VA hospital in Chicago will be the featured speaker.
- Engineering in Medicine and Biology, Baltimore, Nov. 18-20.
- Third International, Second Latin-American and First Uruguayan Congresses of Proctology, Montevideo and Punta Del Este, Uruguay, Dec. 9-15.
- Clinical Meeting, American Medical Association, Portland, Dec. 1-4.
- International Symposium on Anticoagulant Therapy in Ischemic Heart Disease, Miami Beach, Jan. 9-11.
- "Workshop in Teratology," University of Florida, Feb. 2-8. The Workshop will familiarize scientists from government, industry and the universities with concepts and methodology used in studying congenital malformations.
- Canadian-American Medical and Dental Ski Association, Harbor Springs, Michigan, Feb. 17-19.
- American College of Surgeons, New Orleans, March 16-19.
- Illinois State Medical Society, Sherman House, Chicago, May 17-21.

Chicago Heart Association

A professional meeting for practicing physicians will be part of the Chicago Heart Association's 40th Annual meeting scheduled for Wednesday, Nov. 13.

The professional meeting will start at 2:30 p.m. at the Pick-Congress hotel, annual meeting site. The Illinois State Medical Society is one of 19 cooperating organizations.

Dr. Willis J. Potts, of Children's Memorial hospital, will preside at the session. It will include discussions of cardiac surgery, cardiac arrhythmias and resuscitation and problems in the management of heart disease in children. A question and answer period will follow each discussion topic.

Drs. Morris Fishbein and Geza de Takats will speak at a 12 noon luncheon meeting. There is a \$3.75 charge for the luncheon.

Dr. Fishbein's topic is: "Conquering Heart Disease—What are the Prospects?" Dr. de

Takats will discuss: "Cigarettes and Circulation—What is Our Responsibility?" At the meeting Dr. Fishbein will succeed Dr. de Takats as Chicago Heart Association president. New officers and board members will be elected.

Dr. Peter V. Moulder of the University of Chicago will chair the session on cardiac surgery.

Chairing the cardiac arrhythmias and resuscitation panel is Dr. Ormand C. Julian of the University of Illinois. Dr. H. Gunther Buchleres, University of Illinois, will chair the panel on heart disease in children.

Reservations for the luncheon and professional meetings may be made by calling or writing ANNUAL MEETING, Chicago Heart Association, 22 W. Madison Street, Chicago 60602, FInancial 6-4675.

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Essay Contest

The Trustees of America's oldest medical essay competition, the Caleb Fiske Prize of the Rhode Island Medical Society, announce as the subject of this year's dissertation "Clinical Application of Newer Discoveries in Enzyme Chemistry." Essays must be submitted by December 11 for the \$500 prize. More information may be obtained by writing the Secretary, Caleb Fiske Fund, Rhode Island Medical Society, 106 Francis Street, Providence 3, Rhode Island.

Current Literature

The Industrial Medical Association has issued a new booklet called "Occupational Health Bookshelf". The pamphlet contains 182 References and is available on request when accompanied by a stamped (10c) self addressed envelope. Requests should be sent to the Industrial Medical Association, 55 East Washington, Chicago 2, Illinois.

A film catalog listing all of the 16mm. Hollywood motion pictures available for showing to hospital patients has recently been released by Films, Incorporated, 1150 Wilmette Avenue, Wilmette, Illinois. The catalog lists more than 1,500 full-length features and short subjects produced by Hollywood's major and independent studios which can be rented for non-theatrical showing.

A Guide to Job Placement of the Mentally Retarded, first of its kind ever published, has been issued by the President's Committee on Employment of the Handicapped. Copies are available without cost from the President's Committee in Washington, D.C.

E.E.N.T. Papers Requested

The E.E.N.T. section of the Illinois State Medical Society will sponsor a full day meeting during the Society's Annual Meeting May 17-21. Anyone wishing to present a paper before the section should send their abstract to Roland I. Pritikin, M.D., 1211 Talcott Building, Rockford, Illinois. Deadline for title and abstract of 25 words is Jan. 1, 1964.

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Letters to the Editor

Dear Editor:

The *Chicago Tribune* on August 31, 1963 carried a news item to the effect that Peace Corps Candidates are to be examined by "Federal Aviation Authority" designated physicians.

The selection by the F.A.A. of a designated panel of physicians was acquiesced in by the Illinois State Medical Society and the A.M.A. about three years ago, though it carried the implication that the profession at large was incompetent to do the examination of civilian pilots.

This now is another example of the trend in the Federal services to assume authority. Regardless of the importance of the issue, medicine should resist all unreasonable restrictions placed upon it by whatever agency, organization, or business.

**William O. Ackley, M.D.
Chicago**

Deaths

Max Appel*, Burnham, died August 23, aged 55. Canadian by birth, he graduated from the University of Toronto in 1932, specializing in pathology at Burnham City Hospital, he was nationally known for his cancer research at Michael Reese Hospital. In 1942 he began the first downstate blood bank and was president of the Illinois Association of Blood Banks in 1953. In 1944 he was a surgeon in the Navy Medical Corps.

Frank Arnold*, Lawrenceville, died July 28, aged 76. He was a graduate of Chicago Medical School in 1928.

William Henry Betts*, Havana, received his medical degree from Drake University in 1913, served in both the Spanish American War and World War I. He practiced as a physician and surgeon for 46 years, retiring in 1956. He was a member of the Fifty Year Club of ISMS. He died July 28, aged 86.

J. H. Davis*, Carlinville, was graduated from Northwestern University School of Medicine in 1897 and continued his studies in London and Vienna. He had practiced in Carlinville for 50 years and retired in

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1957. He was an emeritus member and a member of the Fifty Year Club of ISMS. He died August 13, aged 90.

Gladys Henry Dick, California, formerly a Chicago physician, studied in Europe after graduating from Johns Hopkins in 1900. She and her husband, Dr. George F. Dick, co-developed the Dick vaccine for scarlet fever, becoming the third and fourth Americans to receive the Cameron prize of the University of Edinburgh in 1933. The main part of her career was spent at the McCormick Institute for Infectious Diseases. She died August 21, aged 82.

Joseph J. Hackett*, Chicago, graduated from Northwestern University in 1912. He was a member of the Fifty Year Club of ISMS. He died September 1, aged 74.

Fred A. Johnson, Onarga, aged 72, died August 25. He was a graduate of Bennett Medical College in 1914.

Harry R. Keiser, Chicago, died September 6, aged 63.

Joseph M. Koch*, Granite City, died August 14, aged 57. Born in Hungary, he was a graduate of Loyola University School of Medicine in 1939 and had practiced in Granite City since graduation. Both he and his wife, Dr. Felicia Koch, were physician-surgeons.

Frederick M. Lindauer*, Chicago, died September 1, aged 63. He graduated from the University of Heidelberg in 1922 and practiced in Germany until 1936. He was on the staff of Weiss Memorial and Mercy hospitals and a fellow of the American Geriatric Society and also former president of the Round Table of Cardiology.

John E. Missal, Pittsfield, died July 26, aged 61. He was a native of British Columbia, Canada.

Stephen Rothman*, Chicago, died August 31, aged 68. Born in Hungary, he was a graduate of the University of Budapest in 1917. Professor Emeritus of

Medicine at the University of Chicago, he was an internationally recognized authority in dermatology. After formal retirement, he remained an active staff

Dr. Rothman



member of the Argonne Cancer Research Hospital. He had been awarded some of the highest honors in the field of dermatology. Dr. Rothman was a featured speaker at the 1963 Annual Meeting of ISMS.

Harry W. Seitz, Henry, died August 10.

Robert Salem Salk, Chicago, died March 12, aged 73. He was a graduate of the University of Illinois College of Medicine in 1913.

Henry C. Turney*, Shelbyville, 81, died August 14. He was a graduate of the Physio-Medical College of Indiana in 1904. He was an emeritus member and a member of the Fifty Year Club of ISMS.

*Indicates member of Illinois State Medical Society.



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LEGISLATIVE LISTENING POST

November, 1963

KING-ANDERSON HEARINGS ANNOUNCED

Public hearings on the Administration's King-Anderson bill have been scheduled in Washington by Wilbur Mills, Chairman of the House Ways and Means Committee for November 18-27. This news is a grim reminder that a decision on Social Security health care for the aged may be forthcoming in the 88th Congress. Permission to testify has been requested by ISMS. Dr. H. Close Hesseltine, Chicago and Dr. Joseph R. Mallory, Mattoon will act as witnesses.

Operation Hometown Action Necessary

The importance of the hearings cannot be overstated. The record created during these hearings will serve as the background for the Committee's final decision. Beyond the hearings, much depends upon arousing public opinion against this ill-conceived, unjustified legislation. In the next few months, demands for rejection of King-Anderson must reach Congress from all quarters of the country and all walks of American life. This can only be accomplished through you -- through your letters, personal contacts with your Congressmen, and the encouragement of letters and contacts from your friends in the community.

Congressional Contacts

Time is limited. Members of Congress will be home only a few days at Thanksgiving and Christmas before the start of the next session. Congressional Contact Committees should plan ahead for meetings with their Senators and Representatives during those brief periods.

Labor and Administration Testimony Expected

Active support of the measure is expected from the AFL-CIO and most of its member unions, and the labor-sponsored National Council of Senior Citizens. Hearings will begin with Administration officials testifying in support of the measure, followed by public witnesses testifying for and against the proposal. The AMA, its constituent societies, allied medical groups and other organizations and individuals are expected to testify in support of Kerr-Mills and other existing mechanisms for caring for the needy aged.

NEW KERR-MILLS BENEFITS

Benefits under the Illinois Kerr-Mills program (Aid to the Medically Indigent Aged - AMIA), will soon be expanded under agreements reached by ISMS

and the Department of Public Aid. New services include (1) payment for drugs dispensed or prescribed by the physician during visits within the 30-day post-hospitalization period; (2) post-hospitalization nursing home care up to 90 days, including physicians' services and drugs connected with such care; and (3) up to 90 days' rehabilitation nursing home care in a facility approved by the Department provided the recipient can benefit from an intensive rehabilitation program.

These services are in addition to those currently provided which include: (1) in-hospital care in general hospitals throughout the state; (2) physicians' services during hospitalization including postoperative care in downstate hospitals; and (3) post-hospitalization physicians' visits for 30 days after release from the hospital.

Legislative Changes

Basic legislation enacted by the 1961 Illinois General Assembly, permits a wide range of services at the discretion of the Department of Public Aid, in keeping with available funds. Two amendments to the basic law, enacted in the 1963 Assembly, will ease the administration and liberalize eligibility requirements slightly. These are (1) elimination of the former mandatory 10% of income deductible payment and (2) a new definition of the amount of life insurance as an exempt asset (\$1000 cash value instead of \$1000 face value). Details of the new deductible provision are yet to be finalized. However, the deductible will be liberalized materially.

Kerr-Mills Successful

In the two year existence of the program, about 10,000 over 65 recipients have been aided with hospital and post-hospital benefits at a cost of about \$5.3 million. An appropriation of \$20.8 million has been established for the 1963-65 biennium. Illinois has in existence, a program to provide hospital and post-hospital services, not on a limited basis, but for as long as essential need exists. Recipients may retain as much as \$1800 (\$2400 couple) in both income and assets (home and other items excluded) and still obtain full benefits. The fact that only about 17,000 have found it necessary to seek help with medical bills in the two year period, indicates the gross exaggeration of the number of medically needy among the aged. Further improvements in administration and benefits may be anticipated.

LEGISLATIVE FOLLOWUP--Phenylketonuria Bill HB 1578

House Bill 1578, appropriating \$50,000 to the Department of Public Health for PKU activities, allows for expansion of services begun in mid-1961. Under the act, funds are available to improve laboratory services through the recruitment and training of personnel, and the development of techniques and procedures for carrying out appropriate tests on a substantial sampling of newborn infants. Larger hospital laboratories will be encouraged to set up PKU testing programs. Further evaluation of testing methods will be made.

Finalizing of plans for implementing the law will be accomplished in conjunction with the Department's Advisory Committee -- a 7 member committee including representatives of ISMS and the Illinois Council for Mentally Retarded Children. The act also requires the Department to maintain a registry of reported PKU cases and to provide medication for diagnosed cases. The reporting of cases is permissive. An alternate bill to require mandatory reporting and testing was defeated in the 73rd General Assembly.

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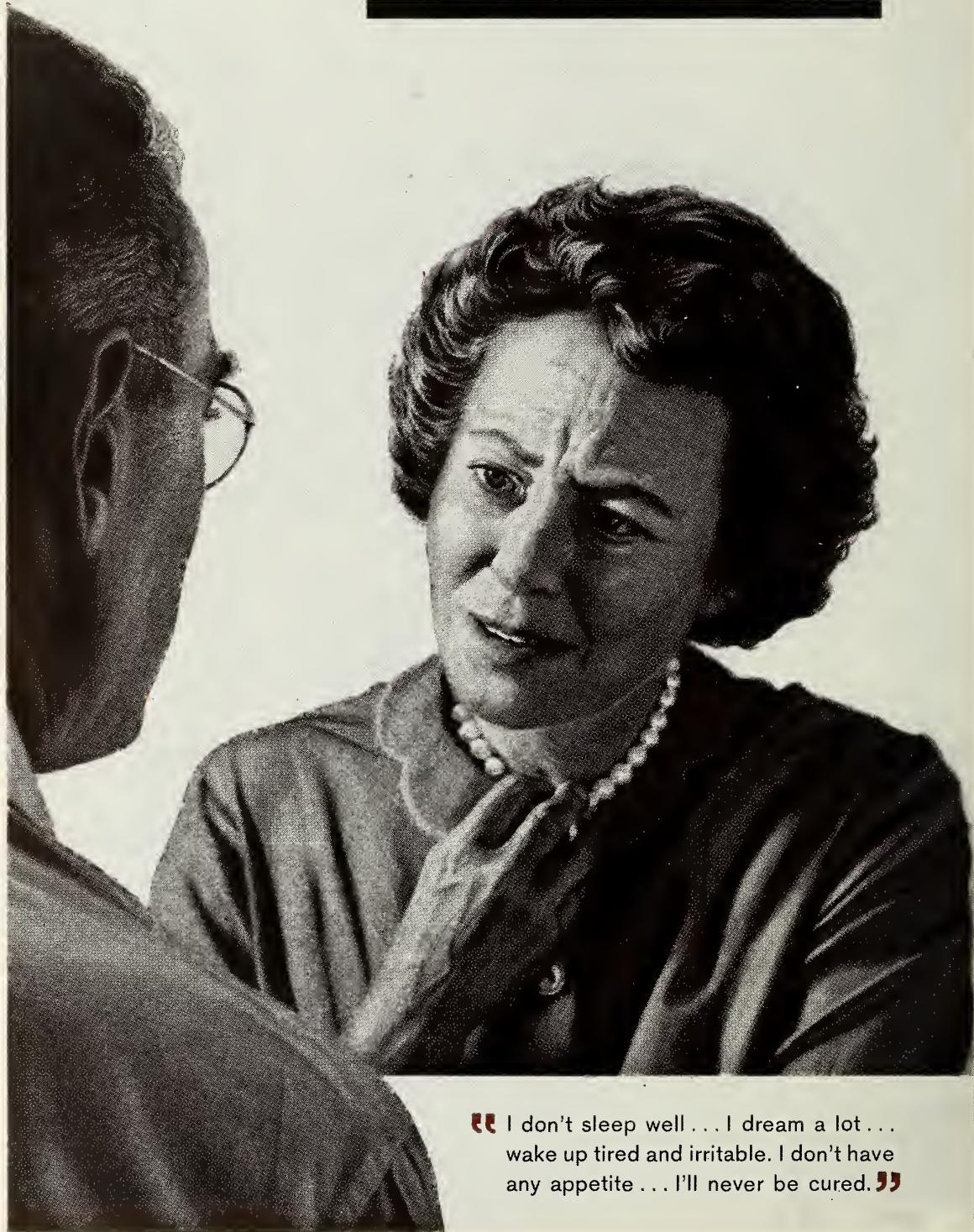
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AS I SEE IT FROM '360'

By ROBERT L. RICHARDS
Executive Administrator

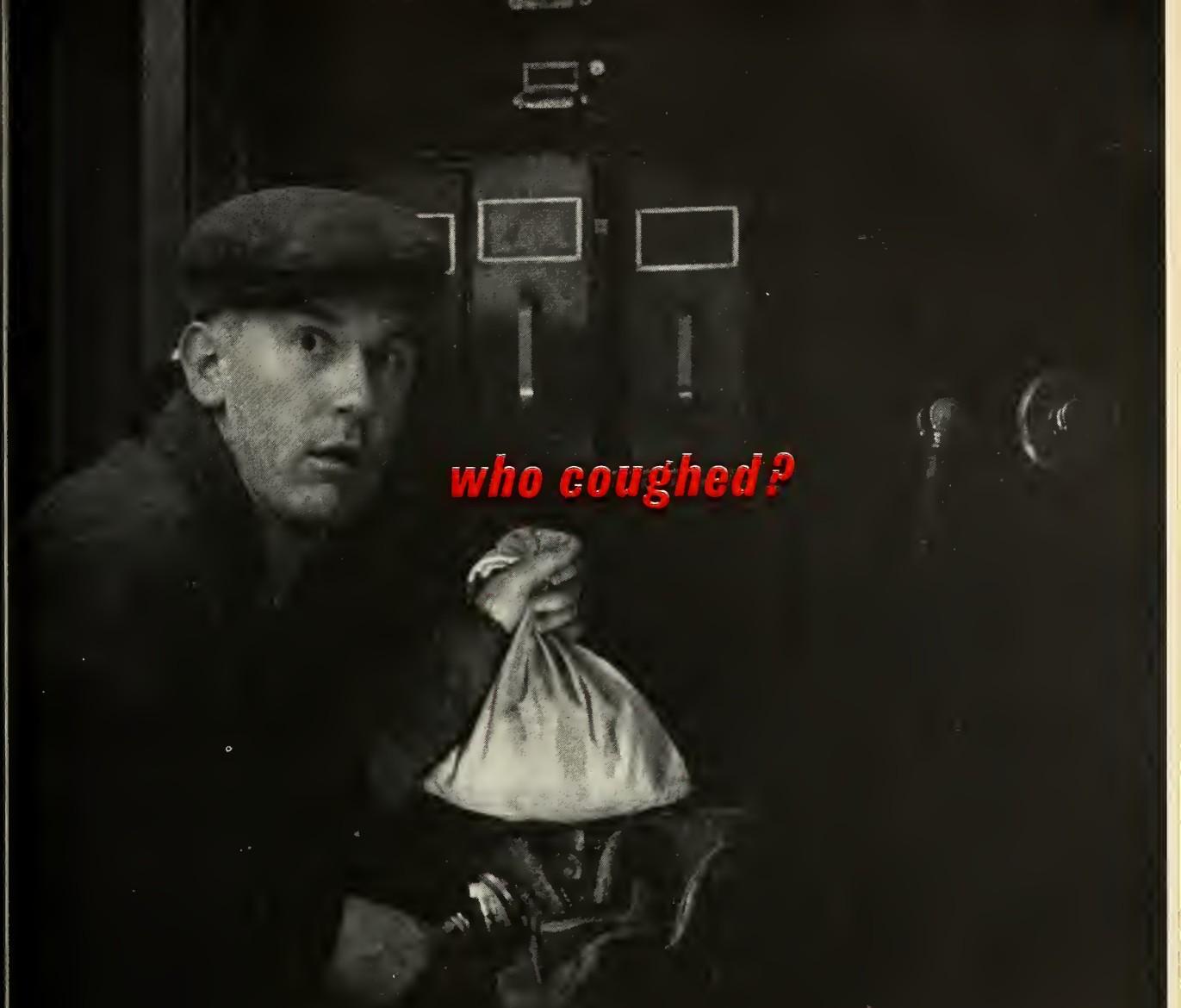
ISMS' Policy Manual Begun

The subject of policy development was explored in four workshop sessions at the annual meeting with committee chairmen Sunday, October 6. Approximately eighty individuals, including members of the Board of Trustees and staff, began a long and challenging job of developing a policy manual for presentation to the 1964 House of Delegates. This is predicated on the wish of the House that such a manual should be prepared and eventually adopted so that they as well as all members of the Society might have available to them the Society's specific policies with respect to its activities—e.g. administration, scientific services, economics, public relations, legislation, etc.

It is understandable that when eighty individuals attempt to discuss items of such extreme importance necessarily based upon sound principles, they may find it difficult to agree on the proper phraseology of policies. Besides, the English language does not lend itself particularly well to specifics.

The next six months will be a hard taskmaster for the committee chairmen to prepare a final presentation with all the i's dotted and the t's crossed. There is no guide prepared, nor has there been any previous attempt by a state medical society to complete such a project. There are some general rules available in previous actions of the House of Delegates which include some policy, state some principles, and suggest directions. These, although they will prove to be helpful, are most incomplete for what eventually is desired.

The Committee on Policy, which is responsible for this project, would be most appreciative of any comments which the members would care to make, or policy which they may care to suggest for consideration and possible inclusion in the manual. Dr. Edward A. Picczek, chairman of the committee, may be contacted through our headquarters office in this regard.



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Literature on request

ENDO LABORATORIES Richmond Hill 18, New York

Abstracts of Board Actions—October 5, 1963

The following abstracts briefly highlight Board Actions taken at the last meeting. A complete summary of these actions has been mailed to all ISMS Delegates. If you desire to review this complete summary, please contact your ISMS Delegate.

Workshops Lay Groundwork for ISMS Written Policy

Policy Committee Chairman E. A. Piszczek, M.D., reported that the committee chairmen workshops on October 6 to develop a written policy manual for all ISMS committees was the first such activity undertaken by a medical society. Upon completion for presentation to the House of Delegates in May, 1964, it will establish ISMS as a leader and example in having medical society policy in writing.

Membership In U.S. Chamber of Commerce Urged

Secretary-treasurer Jacob E. Reisch, M.D., cited the work of the U.S. Chamber of Commerce in medical areas to encourage Chamber membership by county medical societies. He said that 40 county medical societies in Illinois already belonged, and that the remainder should follow this example to keep better informed of national affairs important to the medical profession.

Health Care Study Commission to Be Appointed

President-Elect E. A. Piszczek, M.D., Franklin D. Yoder, M.D., Director of the Illinois Department of Public Health, and Newton DuPuy, M.D., Chairman of the Board of Trustees were selected to appoint a Health Care Commission of lay and medical leaders to assist local communities in the National Health Council Survey, and also to secure financial aid for a separate statewide study previously proposed.

Lab Evaluation Report

James B. Hartney, M.D., chairman of the committee, urged that the president of each county medical society be made aware of the authorization of district committees on laboratory evaluation. He also urged all physicians maintaining clinical laboratories to register them, even though this is not specifically required in the Registration Act.

DPA Code Status Advantages Outlined

Fred A. Tworoger, M.D., Chairman of the Advisory Committee to the Department of Public Aid, said that new code status of the Department would eliminate delays when new set-ups and proposals are made. Payment of physicians also will be accelerated.

ISMS Officials Elected to IAP Posts

Official approval was given to the elections of George B. Callahan, M.D., and Robert L. Richards as organizing president and executive secretary respectively of the newly organized Illinois Association of the Professions.

A maximum advance of \$5,000 to the Illinois Association of the Professions to assist their organization was approved. The availability of these funds helps to establish ISMS as a leader in the development of the Association.

Pharmaceutical Code Urged

Reporting for the Liaison Committee to the Illinois Pharmaceutical Association, George F. Lull, M.D., said that a Code of Cooperation similar to those developed by the pharmacists and physicians of Iowa, Alabama and Texas is being investigated. The new committee also is cooperating in the release of appropriate news to the press and in legislative areas.

Professional Relationships Strengthened by PR Programs

During the past month Public Relations radio and television programming has featured members of the Chicago Dental Association, Illinois Dental Association, Illinois Pharmaceutical Association and the Illinois Nursing Association. This participation is helping to cement relationships between ISMS and other professional groups as well as serving an educational function.

Speakers' Bureau Financing

Merck, Sharp and Dohme of Philadelphia hereafter will finance scientific speakers appearing before county medical societies in Illinois through the state society Speakers' Bureau. This means that county societies should request sponsorship for speakers directly from the State Medical Society rather than to representatives of Merck, Sharp and Dohme.

Hospital Meeting Success Told

Speaking as Chairman of the Committee on Hospital Relations, Noel G. Shaw, M.D., said that the fifth annual Joint ISMS-IHA meeting in Peoria September 26 attracted about 300 persons, 100 of whom were physicians. Success of the meeting, which explored comprehensive care in the general hospital, was attributed to careful planning and cooperation of the ISMS staff with IHA representatives.

Commendation to Kiwanis Group

Newton DuPuy, M.D., Chairman of the Board of Trustees, announced the presentation of a plaque to the Illinois-Eastern Iowa District of Kiwanis on October 1 for its outstanding activities in the Spastic Research Foundation.

Group Disability Applicants

The recent effort to increase participation in ISMS group disability has netted 273 new applicants, for a total of over 2,000 members in the plan as of August 31, 1963.

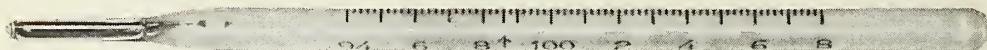
Governor Supports ISMS Resolution

Resulting from an ISMS Resolution sponsored by the Disaster Medical Care Committee in 1963, Governor Kerner has recommended that public and private buildings be constructed so as to provide sizable areas which can be converted to shelter spaces. He also recommended that shatter-proof or shatter-resistant glass be given preference where large expanses of glass are utilized.

Liaison Committee With Blue Cross Formed

The Committee will consist of the chairmen of the Committees on Medical Education and Hospitals, Medical Economics, Prepayment Plans and Organizations, and Relative Value. The chairman of the Committee on Medical Economics I. E. Bartlett, M.D. is to be the chairman of the Liaison Committee.

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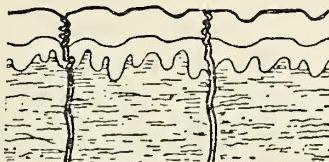
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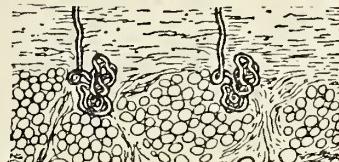
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Special Section



DISEASES OF THE SKIN



Acne Symposium

Pathogenetic Factors in Acne Vulgaris, page 418

Treatment of Acne Vulgaris, page 420

Dermabrasion for Acne Scarring, page 424

Psychiatric Considerations in Acne Vulgaris, page 427

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Pathogenetic Factors In Acne Vulgaris

ALLAN L. LORINCZ, M.D., Chicago

ALTHOUGH OUR KNOWLEDGE about the pathogenesis of acne vulgaris is still quite incomplete, at least the outlines of a final picture seem to be emerging on the basis of the clinical and experimental information which has so far become available.¹ These outlines can already serve usefully in guiding further research as well as in the clinical management of the disorder.

In introducing consideration of the various recognized pathogenetic factors in acne, clinical features of the disease must be considered.

Acne vulgaris is a particularly common, rather chronic inflammatory disease which centers about pilosebaceous structures in certain predisposed areas of the skin during adolescence and early adult life. These areas of predilection are the central parts of the face, the upper back and shoulders, and the sternal area. Often the involved follicles are of the sebaceous type in which sebaceous glands are the predominating structures and the associated hairs are rudimentary. Furthermore, there is evidence that lesions evolve only in those follicles which are in the resting phase of the hair cycle. The disorder practically never persists beyond the third decade of life. During the pubertal years it occurs to some degree in at least 75 per cent of both boys and girls though it tends more often to be severe in boys.

From the Department of Medicine, Section of Dermatology, University of Chicago.

Presented at the Annual Meeting of the Illinois State Medical Society, Dermatology Section, May 15, 1962.

Clinically, acne is practically always associated with excessive oiliness of the affected skin areas. This excessive oiliness directly correlates with local hyperplasia of sebaceous glands which in turn is regulated by hormonal factors. Among these hormonal factors, clinical experience and animal experiments indicate that androgenic steroids or progesterone in the presence of a pituitary sebotropic factor are the key endocrine stimuli which promote sebaceous glandular hyperplasia. Although such sebaceous hyperplasia with excessive oiliness of the skin seems to be a necessary prerequisite for the development of ordinary acne, it is obviously not the sole etiologic factor. This fact is clearly evidenced by the total lack of acne in some individuals with profuse seborrhea associated with huge sebaceous glands such as occurs particularly strikingly in some post-encephalitic states and in the presence of some mid-brain tumors. Dietary factors have relatively little influence on sebaceous glandular activity although there is a little experimental evidence which suggests that extremely high fat or carbohydrate diets may enhance sebum production.

There is clearly an individual susceptibility factor to acne and this tends to be familial. The individual susceptibility is well illustrated when adults are given large doses of androgens. Severe acne tends to develop only in those who earlier in life had pronounced acne.

The primary lesion of acne is the comedo or blackhead which can be defined as a stagnating column of sebum, horny material and

other debris in a dilated hair follicle. If blackheads are lacking, a clinical diagnosis of acne cannot be made. The dark color of the surface of the comedo is usually not caused by dirt as commonly supposed but rather represents an oxidation product of horny material. Blackheads occur in a variety of sizes and it is chiefly the small, almost microscopic ones that are the foci around which the further acne lesions develop. Macroscopic comedos rarely develop into pimples. First, an inflammatory red papule forms about the small comedo. This then may become a papulopustule and then finally a pustule or even a cystic abscess. Involution of the individual lesions, however, may occur at any of these intermediate stages. Lesions in all stages of evolution and involution occur simultaneously.

In the pathogenesis of the blackhead, the earliest changes involve the duct of the sebaceous gland where excessive keratin formation appears. This excessive keratinization then progresses upwards along the follicle to the surface. If inflammatory changes do not supervene, the comedo enlarges and matures and associated follicular structures such as the sebaceous gland undergo squamous metaplasia and disappear. Such fully mature comedos, of course, generally do not evolve into inflammatory lesions. This abnormal follicular keratinization which occurs in acne is perhaps the key pathogenetic factor in the disease and it is of interest to note that in the acneiform eruptions associated with the administration of corticosteroids as well as in those caused by contact with acnegenic chemicals such as halowaxes, tars and some oils, identical abnormal follicular keratinization occurs but without in many cases the sebaceous glandular enlargement which occurs in ordinary acne.

Pathogenic micro-organisms at least in the usual sense are not found in the lesions of uncomplicated acne. Secondary bacterial infection with pathogenic staphylococci, however, is not rare. It is perhaps also noteworthy that the anaerobic organism propionobacillus acnes thrives abundantly in the type of sebaceous follicle in which acne lesions occur. Although considered to be part of the non-pathogenic normal flora of the skin, it possibly may, through its metabolic activities upon sebum, be

implicated in some indirect way in triggering the abnormal follicular keratinization observed in acne.

In addition to sebaceous glandular hyperplasia and abnormal follicular keratinization, a third factor involved in the pathogenesis of acne is the degree of the host's inflammatory reaction which develops about the comedo. It is likely that mechanisms involving reaction to primary irritants formed in the comedo as well as true allergic hypersensitivity to bacterial and other antigens in this stagnating column of material largely determine the intensity of the inflammatory response. At any rate, the greater the degree of this host reaction, the larger and more pustular are the lesions. In any particular case of acne, the three pathogenetic elements which have been mentioned are found in varying degree and determine the clinical type of the disease. Where the inflammatory reaction is minimal and follicular keratinization is the predominant factor, the disease takes the mild form of punctate or comedo acne. Where the inflammatory reaction is violent, the disorder assumes the form of indurated, cystic or conglobate acne. The more common papulopustular varieties of acne lie between these extremes.

The amount of scarring from acne depends on a number of factors. The depth and intensity of the inflammatory reaction are of great importance and severe scarring is to be expected in the cystic and conglobate varieties of the disease. Bridged scars and sharply punched out scars with undermined, scalloped edges tend to occur in the most severe forms of acne. Another important factor in scarring which requires attention is the amount of picking or manipulation of the lesions done by the patient. Sometimes a great deal of scarring is produced in the presence of a very mild acne by this process which is essentially a form of neurotic excoriation. A special situation in regard to scarring occurs in those patients with a predisposition to develop hypertrophic or keloidal scars. In such individuals severe scarring may result from even relatively mild acne. Hypertrophic scar forming tendencies are also most marked in certain regions such as the nape of the neck and the sternal area.

REFERENCE

1. Lorincz, A. L. and Rothman, S.: Acne. The Med. Clin. of No. America, p. 497-504, March, 1958.



Treatment of Acne Vulgaris

FREDERICK D. MALKINSON, M.D., D.M.D., Chicago

Introduction

MILD ACNE VULGARIS is an exceedingly common disorder of adolescence which almost regularly accompanies other puberal changes. Except in severe form, acne is essentially a cosmetic problem which has little effect on the general health. In our complexion-conscious society, however, the resultant psychological, social, and even economic consequences of "skin blemishes" may be highly disturbing to the patient and to his family. Consequently, affected individuals should be urged to seek medical care and should not be simply advised that "all youngsters go through this and sooner or later you will outgrow it". The importance of treatment for the patient concerned about his appearance is obvious, and the most intelligent approach combines reassurance and encouragement with the application of carefully chosen treatment methods of established empiric value. Despite the need for more complete knowledge of pathogenetic mechanisms, and for even more effective therapeutic techniques, the present-day treatment of acne yields quite satisfactory results in the great majority of patients.

From the Section of Dermatology, Department of Medicine, The University of Chicago, Chicago, Illinois.

Acne is a chronic disorder characterized by a variety of lesions which arise—usually in sequence—in the pilosebaceous apparatus. The follicles commonly affected are those containing hairs in the resting stage (*telogen*) of the hair cycle. Darkened follicular plugs (*comedones*) are the hallmark of acne but, when inflammatory changes occur about these affected follicles, papules, pustules, and acne cysts may also develop. Subsequent scarring depends upon the extent and severity of destruction of the pilosebaceous apparatus and perifollicular connective tissue. One or several forms of acne lesions may be present at any given time, and the areas of predilection include the face, upper back and shoulders, and presternal region. Rarely, very severe cases of acne extending to the lower trunk and extremities are encountered. The course of the disease is unpredictable and is characterized by periodic exacerbations and remissions, the latter often occurring after prolonged summertime sun exposures. During the puberal years 80 per cent or more of individuals of both sexes develop some "physiological" acne lesions, although in most cases these are mild, non-scarring, and of such short duration that they are not brought to medical attention. In almost all of the remaining patients the disease becomes inactive after the third decade, al-

though in some individuals recurrences may continue until middle life.

Treatment

The most suitable methods employed in the treatment of acne have followed recognition of the pathogenetic factors involved, a discussion of which is included in this symposium. Despite the significant hormonal effects exerted on the human pilosebaceous unit by the testis and, perhaps, by the pituitary, ovary, and adrenal cortex,¹⁻⁴ satisfactory endocrinologic management of acne can almost never be achieved. The only significant exception is the rare case, usually in a female, where estrogens have been claimed to be an effective adjunct to therapy. It is certainly tempting to speculate, however, that some day our knowledge of the hormonal factors contributing to the pathogenesis of acne may provide us with highly effective therapeutic agents acting perhaps as metabolic antagonists or inhibitors or by some other mechanism on the cells of the pilosebaceous apparatus. At the present time, however, treatment continues to depend on the use of certain well-established local and general measures that vary in scope and intensity with the severity of skin changes.

Local Therapy

Local therapy is directed principally toward follicular plugging and seborrhea, but is also helpful in reducing the bacterial population on the skin surface. Sulfur and keratolytic agents such as resorcinol, salicylic acid, and strong alkaline soaps are the topical agents of greatest usefulness. The substances used in local treatment are usually incorporated into drying lotions rather than oily or greasy bases, the aim being to produce an inflammatory peeling to remove blackheads and perhaps flatten and drain papules and pustules. Occasionally pastes are used in recalcitrant cases to enhance further the pharmacologic effects of incorporated ingredients.

The patient should be instructed to wash the face gently with soap and hot water for several minutes one to three times daily. For this purpose a potassium soap (medicinal soft soap,

U.S.P.) is more effective than conventional sodium soaps. The too vigorous use of complexion brushes and washcloths may induce untoward irritation and should be avoided.

After washing, a mild lotion formulated as follows can be applied two or three times daily:

	Light	Medium	Dark
Neutracolor	2.9Gm.	4.2Gm.	6.7Gm.
Resorcinol		2.0Gm.	(may vary from 2.0 to 5.0 Gm. as required)
Sulfur		3.0Gm.	(may vary from 3.0 to 20.0 Gm. as required)
Zinc oxide		8.3Gm.	
Talc		8.3Gm.	
Galamine		8.3Gm.	
Glycerine		8.3Gm.	
Alcohol 70%		16.6c.c.	
Distilled water q.s. ad		100.0c.c.	

The added neutracolor (iron oxide) often provides a fairly suitable match to the patient's skin color, making the preparation more acceptable cosmetically. Initially, mild preparations containing low concentrations of sulfur and resorcin should be prescribed and these can be tested first on a limited skin area to avoid possible widespread irritation. If skin tolerance is good the concentrations of sulfur and resorcin can be increased stepwise (see above) until suitable dryness and scaling result. Should excessive irritation occur at any time, treatment can be discontinued for a day or two and then resumed with either less frequent applications or a weaker preparation.

There are many commercially compounded acne lotions, pastes, and ointments which contain sulfur and resorcin and which are cosmetically quite acceptable. Most of these preparations are of limited usefulness, however, because variations in vehicles and full ranges of sulfur and resorcin concentrations are not available for optimum treatment results.

When clinical response to lotions is inadequate the following paste can be applied: precipitated sulfur, 10 Gm.; salicylic acid, 5.0 Gm.; resorcinol, 2.0 Gm.; and zinc oxide ointment, U.S.P., sufficient to make 100.0 Gm. This strong preparation must be applied cautiously and is usually used to limited areas of the skin surface for overnight application only. For severe and

widespread acne hot compresses with the following freshly prepared sulfurated lime solution (Vleminckx' solution), a strong sulfide preparation, may be quite useful: liquor calcis sulfurata, 5 to 10 per cent in water. Metal articles may be discolored by the sulfide and should be removed prior to use.

The summertime improvement of acne attests to the usefulness of ultraviolet light in producing a desirable degree of dryness and scaling of the skin. While fairly intense ultraviolet radiation with mercury vapor lamps can be given as an office procedure, a relatively inexpensive artificial source of ultraviolet rays (the RS bulb) is available for home use. With this bulb, which can be inserted into an ordinary lamp socket, irradiation is given to the affected areas each day at a distance of 15 inches from the skin surface. The initial exposure time of one minute is increased by thirty seconds daily until a maximum time of ten minutes is reached. For the face separate exposures are given successively to the right and left sides and to the front after the eyes have been covered with moist cotton. Directions concerning protection of untreated areas and precautions against overexposure (especially by falling asleep under the lamp) are essential. All local applications must be removed before treatment is begun. A careful balance between the use of local preparations and ultraviolet light is necessary to avoid undue drying, scaling, and erythema. In fair-skinned individuals ultraviolet irradiation should be used only for limited periods of time to avoid premature aging of the skin.

Judiciously administered X-ray therapy may be of great value in severe cases failing to respond to other treatment measures. Selection of patients and technique of administration are best left to those with specialized training. Proper use of X-ray therapy does not involve harmful or undesirable sequelae.⁵

Certain local procedures in the office are sometimes helpful in the treatment of patients with acne. Some degree of mild redness and scaling can be induced by the once or twice weekly application of a "slush" prepared from solid carbon dioxide and acetone with or without added sulfur. The "slush" is lightly applied to affected areas with the gauze-wrapped tip of a tongue depressor. This technique may be

a helpful adjunct to treatment in patients who are not showing optimum exfoliation from topical preparations.

Acne cysts are best treated conservatively with hot applications, but persistent fluctuation may require active drainage. This can be done under local ethyl chloride anesthesia by aspiration with a large bore needle or by scalpel incision with a small opening at the dependent portion.

Since acne treatment is designed to eliminate comedones over a period of time, manual extraction of these lesions is seldom necessary. Where treatment results are slow or comedones are present in large number they may be removed carefully with a comedo extractor. Hot compresses locally may be needed beforehand to facilitate removal. It must be strongly emphasized to the patient, however, that his own squeezing of blackheads, pustules, or cysts may produce added scar formation or spread of infection.

In addition to treatment of affected parts care of the scalp may also be helpful. For seborrhea and excessive scaling, shampoos with medicinal soft soap liniment, U.S.P. (tincture of green soap), can be given twice weekly followed by a water-washable vehicle containing 3 per cent sulfur and 2 per cent salicylic acid. For male patients greasy hair pomades should be avoided; short haircuts facilitate scalp care. Female patients should not use cosmetic preparations with greasy bases, although lipstick and eye make-up are essentially harmless.

At the beginning of the treatment program a frank discussion with the patient about acne is indicated. Also he should be carefully instructed and urged to be conscientious in his treatment regimen. Depending on the severity of involvement he should be told that the treatment goal is one of considerable cosmetic improvement and not necessarily "the perfect complexion."

General Measures and Systemic Therapy

There are considerable differences of opinion concerning certain general measures that have been advocated for the management of acne. The relationship of diet to disease activity, for example, is questionable. Although excessive

fat and carbohydrate intake increase sebum production, there is no satisfactory evidence that sharp restrictions of dietary fat or carbohydrate ameliorate acne. Furthermore, too strict dietary regimens in adolescents may produce alarming weight loss. Only in some patients with severe complicating secondary bacterial infections do reductions in dietary carbohydrate seem to be helpful. Also it has long been claimed that certain foods may aggravate acne by inducing pilosebaceous irritation and many physicians continue to restrict chocolate, nuts, strong cheeses, and foods rich in iodine.

Additional measures such as an increase in subnormal weight, elimination of foci of infection, avoidance of undue stress, adequate exercise and fresh air, and sufficient sleep have all been widely recommended. Certainly these admonitions are generally harmless, but it is difficult to believe that they are of specific value in acne.

The advent of systemic antibiotic therapy has been a considerable aid in the treatment of patients where clear-cut secondary bacterial infection complicates pustular and cystic acne^{6,7}. Bacterial cultures and antibiotic sensitivity studies are helpful in selecting the most useful compound. There are, however, several limitations to the usefulness of antibiotic treatment. The question of which organisms found in infected lesions are chiefly responsible for the pathological changes is still unsettled. Consequently, slow or inadequate improvement in some patients may reflect treatment of innocuous bacteria. Furthermore, although many patients respond well to broad spectrum antibiotics (particularly the tetracyclines) initially, recurrent lesions may develop when the dosage is progressively lowered. This necessitates long-term therapy continued for months or even years in some cases, involving in turn considerable expense and possible undesirable side effects from the drug. Unfortunately the sulfonamides are much less frequently effective than the broad spectrum antibiotics, and their administration must be carefully watched for untoward cutaneous, renal, and hematologic manifestations. Interestingly, the local application of antibiotics has proved to be of little value. Following the introduction of systemic antibiotics for the treatment of acne, the popu-

larity of staphylococcus toxoids and autogenous and stock vaccines has greatly diminished.

Estrogenic compounds have been advocated to counteract the effects of androgens and perhaps progesterone on sebaceous gland activity.^{8,9} The results of such hormonal treatment are generally inconclusive when dosage levels are kept low enough to avoid the side-effects of nausea, menstrual disturbances, and feminization. In rare, usually female patients who are beyond the age of 18 and are severely affected, administration of large doses of estrogens may be worthwhile despite unpleasant side-effects. Local application of estrogens in all patients is to be avoided since the treatment results are questionable and the excellent permeability of the skin to these compounds may permit systemic absorption of unduly large amounts of hormone.

Vitamin A preparations have had many proponents in the past. In high dosages this compound acts pharmacologically to inhibit keratinization, thereby hopefully interfering with follicular plug formation. Water-miscible vitamin A preparations have been administered orally in daily dosages up to 100,000 units or higher for periods of several months and have been claimed to be beneficial. In our experience this form of treatment has been disappointing. In addition there are definite dangers of vitamin A intoxication from the high doses administered.

In occasional very recalcitrant cases of acne characterized by widespread deep infiltrates and cyst formation hospitalization for administration of fever therapy may be an effective aid to treatment.

The recently introduced methods for surgical skin planing have been of some value in the important field of improving the appearance of disfiguring scars.¹⁰ Only the experienced practitioner should perform this procedure, and you will hear shortly a detailed discussion of the technique.

In summary the great majority of patients respond to the local measures which have been described, together with natural or artificial ultraviolet light. In more severe cases systemic antibiotics, careful use of X-ray therapy, and, if needed, resort to estrogens and artificially induced fever may improve treatment results. It must be admitted, however, that in very

severe nodular and cystic cases the presently available forms of therapy do not always yield satisfactory results. Much further basic and clinical research is needed before a uniformly successful routine for acne treatment can be developed.

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IMJ Acne Symposium

Dermabrasion For Acne Scarring

PAUL LAZAR, M.D., Chicago

INvariably, THE MERITS of each surgical procedure or drug seek their proper level. This check, inherent in medical as well as other disciplines, properly balances the misuses, abuses, initial enthusiasm and experimental approaches against the benefits derived from any medicament, test, apparatus or operation.

Nine years ago, Kurtin¹ published his experiences with surgical planing for scars and skin defects. A flurry of activity in medical circles and literature appeared; checks and balances followed. The original technique has changed little except for two aspects: substitu-

tion of dichlorofluoroethene (Freon)² for the dangerous ethyl chloride-noisy blower combination; the simple but important use of gentian violet for scar delineation.³ Modifications of hand pieces, substitutions for the wire brush, and other personal preferences have appealed to individual operators.

What are the merits of the procedure? It may be done as well in the office as the hospital. A general anesthetic is not needed; the technique is simple and relatively free from hazard. There is no mortality and the morbidity is tolerable. Finally, in well-selected cases, the results are quite satisfactory and may be a source of a great deal of happiness to the patient.

Assistant Professor of Dermatology, Northwestern University Medical School.

Patient Selection

Of utmost importance is the proper selection of subjects. Unfortunately, not all types of scars can be improved. Deep, angular, "ice pick" scars, enlarged pores, leathery, pitted skin and undulating flat scars do not respond well. In addition, scars on the back, chest, shoulders and neck respond poorly. Those with chicken pox type scars, but more superficial, give the most satisfactory response to treatment.

If a good technical result is likely, the patient's emotional status must be evaluated carefully before treatment is undertaken. Youngsters in whom active acne is likely to continue are not good candidates and ordinarily do not tolerate the experience very well. The emotionally disturbed, attributing unhappiness to their scars, are sure to find the results wanting, as will the perfectionist with barely noticeable scars who wants to have the skin of a child. The most satisfactory subject is the emotionally mature, stable, reasonably intelligent person who will and can accept improvement short of "absolute cure."

The operation should be discussed at some length with the patient and preferably in the presence of a relative or friend. The likelihood of the results falling short of the patient's expectations should be emphasized and the percentage of cure should not be forecast. During this interview, the operator has an opportunity to evaluate the patient's emotional stability, particularly those he has had no opportunity to observe over a period of time in his own practice. Before decision, consideration for several days by the patient is worthwhile and emphasizes the importance and extent of the surgery.

Equipment and Technique

A motor-driven abrading device is attached to a stand with a flexible shaft. As with a dentist's drill, a foot-operated rheostat controls the rotary speed of the wire brush.

The technique is simple. If necessary, a sedative is administered 30 minutes prior to surgery. Chilled packs (5% propylene glycol solution; ice bags) are applied to clean skin (freshly shaved, cosmetics removed) for about 20 minutes. All scalp hair is covered by a bathing

or operating cap; the ear canals are plugged, the eyelids covered, the lips greased, the patient draped. Gentian violet is painted on the base of each scar and over the involved area, serving as a guide for planing depth.

A spray of rapidly volatilizing dichlorotetra-fluoroethane is directed to the scarred area, and almost immediately the area becomes frosted, anesthetized and almost rigid. A wooden tongue blade, held with the operator's free hand, permits him to apply enough tension to make the skin taut and limit the brush's excursion. With the assistant anticipating the operator's moves and, applying the spray in advance of abrasion, short, firm strokes are used perpendicular to the rotating direction of the brush in order to avoid grooving. Treatment proceeds progressively from area to area until all the scars have been treated and all the gentian violet brushed away. It is better to complete the surgery of each area with one brushing, for refreezing increases undesirable post-operative burning and delays healing. With experience one learns to judge the amount of pressure to apply, the width of the abrading brush, the angle at which to hold it, and the direction in which to guide it. As the skin thaws, blood oozes and sterile dry dressings are applied until it stops. Burning occurs between brushing and bandaging, but this stops after the final firm Telfa dressings are applied. The entire treatment area should be done at one time.

The patient is instructed to remove the dressings 24 hours later at home and to expect the bandage to be bloodstained, the face swollen considerably, and that serum may exude for as long as 24 hours. Crusts will form and will begin to drop off in six or seven days. When the crusts have dropped off (usually about 10 to 14 days), the face may be washed gently, dried by blotting; women may use cosmetics and men their razors. Sometimes, vellus hairs prevent the crusts from falling; in such cases, manual removal or the application of a petrolatum dressing will soften the crusts.

Complications

The complications are infrequent and are usually unimportant. Impetigo, easily treated; milia, emptied readily; may occur. Postopera-

tive erythema rarely may persist for several months instead of the usual three or four weeks. This may follow excessive refrigeration, overexposure or premature exposure to sunlight after the operation, or overly vigorous cleansing. The appearance of postoperative eczematous areas and keloids has been reported as a rare complication; I have not observed this. By far the most disturbing postoperative problem is the appearance of hyperpigmentation in the entire area of dermabrasion or at its edges. This color change may persist for months, even years; an unhappy situation for the patient seeking relief from one cosmetic defect only to be plagued by another.

Results

The results from dermabrasion cannot be assessed in precise mathematical terms. The vast majority of the patients are pleased, often more so than the physicians. In the final analysis, it is their approval or disapproval which is of utmost importance; they must live with the results of an elective operation sought for cosmetic reasons.

However, the tangible, visible results depend in great part on proper patient and scar evaluation and also upon the skill of the operator. Those patients with deeply pitted scars, leathery skin, and confluent undulating scars have the greatest need for help; unfortunately, they derive the least amount of benefit from dermabrasion. Scars on the cheeks, and, to a lesser degree, scars on the forehead and temples respond best. Scars on the chest, back, shoulders,

and neck respond poorly. Scars of recent origin respond better than do old ones.

In some cases it may be desirable to repeat the treatment once or twice after an interval of eight months or more. It is highly desirable that a preoperative photograph be taken in each instance and made part of the record. The degree of improvement may then be seen and appreciated by surgeon and patient alike.

Conclusion

The cosmetic improvement and, in particular, the improved well-being of the patient are such to indicate that physicians take too lightly the importance of acne scars to the patient. Acne and post-acne scars are socially unacceptable in our society. Social and economic hardships arise consequent to a physical deviation considered abnormal; in addition, pressures are increased by mass media publicity of surgical techniques for facial rehabilitation.

Dermabrasion should not be used to cure emotional disturbances occasioned by acne scars. However, the vast majority of well-selected patients are pleased with the results, which, to date, make dermabrasion worth the effort.

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Psychiatric Considerations In Acne Vulgaris

JOHN F. KENWARD, M.D., Chicago



THERE IS NO DOUBT that emotional problems are associated with acne vulgaris. But to what extent and how are they related? It is quite possible that an emotional problem is only coincident with the skin disease. Acne vulgaris is predominantly an affliction of adolescents in whom much emotional turmoil is considered "normal". On the other hand, there is some evidence that emotional conflict may contribute to the cause. Certainly, emotional trauma results from it. It has been said: "There is probably no single disease which causes more psychic trauma, more maladjustments between parents and children, more general insecurity and feelings of inferiority, and greater sums of psychic suffering than does acne vulgaris."¹

Several factors contribute to the misery caused by the acne. Our culture in general and the adolescent in particular is prone to over-value physical appearance. It is true that acne is a social and economic handicap, but the adolescent is prone to exaggerate enormously the liability.

Another reason the adolescent is so horrified by the acne is that it is often regarded as an external manifestation of an inner badness. Unfortunately, common remarks and beliefs reinforce this. "It's the meanness coming out!" Jokes and serious comments are made about

acne being the dire consequence of masturbation. The guilty adolescent is only too ready to believe it, and reacts with increased guilt, shame and embarrassment.

In any event, acne intensifies the normal conflicts of adolescence and makes their solution more difficult; however, in spite of all the difficulties a solution is usually reached.

Obermayer² states: "True enough, the psychological stress and strain of these cutaneous blemishes cause untold hours of misery, but most of these patients emerge unscathed both cosmetically and psychologically".

The outcome may not be so favorable in those who are neurotic or have a predisposition to neurosis.

Wittkower's³ studies suggest that the intractable acne that persists beyond the normal adolescent period is related to neurotic factors. He distinguished four personality groups: 1) Rigid persons, distinguished by intolerance of, or retreat from, sexual expression. 2) Rebels and dreamers, who vacillated between devotion to idealistic concepts and the exact opposite behavior. The women had a father fixation. 3) Overgrown children, who were over-protected, emotionally retarded, immature, and characteristically had a mother fixation. 4) Those with gross psychologic disorders such as anxiety hysteria, conversions, endogenous depression, character disorder and psychopathic personality.

Departments of Pediatrics and Psychiatry, University of Chicago School of Medicine, Bobs Roberts Hospital, Chicago.

On the other hand, when Lucas⁴ studied a group of young college students, he found no difference in personality or in the frequency of psychological symptoms between the students with acne and a control group. Most of his group had mild acne which responded to treatment.

The inference is that if the lesions do not respond to treatment and if they persist beyond the usual limits of puberty, more than likely the patient has a neurotic conflict. Wittkower believes that these patients, regardless of age, are emotional adolescents. "They are arrested in their emotional and psychosexual development at the stage of puberty". He says: "No claim is made that acne can be explained on psychological grounds alone. Not only the psychological process of maturation but also the emotional disturbances connected with puberty are relevant to its common onset at this period of life. A retardation of emotional and psychosexual development is related to its onset or persistence beyond the span of life usually allotted to puberty".

Other authors describe how acne is incorporated into the neurosis and takes on a symbolic meaning. Montgomery⁵ reports the psychoanalysis of a woman with acne. The acne was invested with several symbolic meanings and did not respond to topical therapy until her neurosis was cured. Cohen⁶ states: "that a disorder primarily of somatic origin can later be maintained by psychological factors after the original somatic stimuli have ceased to act".

The blackheads and pimples themselves, and the way they are manipulated may have many meanings. They may represent a dirty inferiority, badness or sexual thoughts, and have to be gouged out. Or the manipulation may be an equivalent for forbidden masturbation and a kind of sexual excitement is produced by the squeezing and extrusion of sebaceous material. On the other hand, the squeezing and picking may be self punishment because of guilty feelings.

Not all of those with acne over-manipulate their lesions. On the contrary, some will not give their skin even normal care, let alone follow a prescribed regimen. In spite of bitter protests about their condition, they offer passive and sometimes active resistance to treatment. Some of these patients are transferring

their rebellion against the parents to the physician. Others have a fear of shifting into adult life and the acne offers a ready excuse for failure to achieve success with the opposite sex, with school, or with a job. The acne offers a "solution" to a deeper neurotic problem and is not readily abandoned.

The relationship of emotional factors to the mechanism of acne was studied by Wolff, Lorenz, Wolf and Graham.^{7,8} They found a close relation between phasic emotional reactions and exacerbations in acne lesions. When the patients believed their highly valued but unrealistic sense of independence and individuality was being threatened or abused by an authority figure, usually a parent, they became angry. However, whether or not their aggressive and hostile feelings were expressed, they were viewed as "bad". Thus guilt and depression followed and they felt it futile to take action or consider it.

During angry periods there was hypersecretion of the sebaceous glands. During depressed periods there was hyposecretion, relative stasis and inspissation. This and other physiochemical changes tended toward plug formation. When the patient again became angry, the following hypersecretory phase led to a mass of sebum unable to be extruded and then inflammation and the typical papular and pustular lesion followed.

What has been presented are only a few of the psychiatric considerations in acne vulgaris. It is a complicated disease with many physiological and emotional interactions. But it should be apparent that in many cases successful therapy may well depend on treatment of the underlying unhappiness. For as Stokes has said: "One cannot put beautiful skins on unhappy people".

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Allergic Contact Dermatitis

SAMUEL M. FEINBERG, M.D., Chicago

CONTACT DERMATITIS is the most common occupational disease, constituting about 60 per cent of industrial ills, and it is one of the most frequent non-occupational medical complaints. It is the most common cutaneous disease seen by dermatologists, as illustrated by an incidence of 228 out of 1435 dermatoses seen in private practice by Norman Epstein of California.¹ It can be divided into two large groups, non-allergic and allergic. The nonallergic is due to contact with nonspecific irritants, such as acids, alkalis, a host of irritating chemicals, heat, cold and wind. This type will not be discussed here. The allergic contact dermatitis can be either atopic or the true contact eczematous type. The atopic type is due to the inoculation of an antigen, usually of a protein-like nature, into the skin of an individual who has circulating antibodies to it, such as in allergy to pollen, or the Karaya gum in hair setting fluid or hand lotion. The dermatitis is actually due to multiple skin reactions. We shall confine our discussion to true eczematous allergic contact dermatitis, where the antigen can be any of a variety of chemical substances other than protein and where no circulating antibodies are involved.

Manifestations

Allergic contact dermatitis is caused by direct contact with the chemical substance, and is usually localized to the area of contact. In some instances, however, the inflammation may spread to other skin sites. Sometimes the inges-

tion or injection of the antigen may result in a flare-up of a previous site of contact dermatitis or in the induction of new inflamed areas having all the characteristics of the contact type.

The inflammation is what is commonly called a spongiosis. The lesions are primarily in the upper layers of the skin, first leading to fluid accumulation in the form of invisible vesicles, finally to vesicles of visible size, which can conglomerate to form bullae. During the acute stage the skin is red, swollen and may be weepy, and there is intense itching. When the inflammation becomes chronic keratotic changes and thickening occur and the skin becomes leathery. There is no difficulty in distinguishing the acute stage from atopic dermatitis. However, the chronic form may present greater problems. Atopic dermatitis has certain sites of predilection—flexures of elbows and knees, on wrists and face. Contact dermatitis is usually at areas of contact, such as on forearms, V of neck, eyelids and axillae. Since atopic dermatitis is a disease of the true dermis, the chronic form is evidenced by the fixation of the skin, while in the contact type the skin is usually more movable. Seborrheic dermatitis shows certain areas of predilection—scalp, behind ears, etc., is not as itchy and is associated with other evidence of seborrheic disease. Non-specific contact dermatitis does not have the same itching nor the eczematous tendency as the allergic type.

Constitution and Immunology

Persons who have contact dermatitis to one antigen are more likely to be susceptible to other contact antigens, but the incidence of atopic allergy (hay fever or asthma or atopic dermatitis) is no greater among them than in

From the Allergy Unit, Department of Medicine, Northwestern University Medical School, Chicago, Illinois.

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the general population. In other words, the inheritance factor in atopy does not predispose to contact allergy. In contact allergy the immediate skin response to the antigen by scratch or intracutaneously is always negative, and there are no serum antibodies by which the allergy can be transferred to the skin of a nonallergic recipient. However, the application of the antigen to the intact skin will result in an eczematous reaction in several to 72 hours. Both by clinical exposure and by patch test it is clear that this allergy is of the delayed type. Other allergies of the delayed type, such as that due to infection (tuberculosis, coccidiosis, etc.) and induced delayed pollen allergy,² have been transferred to recipient subjects by peripheral leukocytes. Most attempts of cell transfer of contact sensitivity to simple chemicals have not succeeded.

Specific Agents

The number of substances producing contact allergy run into thousands.³ Here we can only discuss a few.

Plant sources. In the United States the most common source is poison ivy or poison oak, while in other parts of the world the wild primrose is the most important. Ivy dermatitis is an allergy, in spite of the fact that about 75 per cent of the population can react. Its allergic nature is substantiated by the fact that the first contact never causes a reaction, while on the second contact some time later the majority react. The chemical responsible for the sensitivity is in the resin of the plant. The resin of ragweed leaf as well as the pollen is also apt to cause contact allergy. Those who touch the plant (weeding, etc.) may begin their seasonal dermatitis in May, while those who do not can have it from the pollen striking their exposed areas (arms and face) in August and September. These individuals are not allergic to the protein of the pollen and do not have hay fever or asthma. Other plant sources are primrose, various members of the daisy and chrysanthemum families, Russian thistle, handling of tulip and lily bulbs, and weeding of dandelions. The handling of foods such as citrus fruits, celery, potatoes, and many other foods may be responsible for sensitization.

Dyes, cosmetics and clothing. Clothing dyes are less of a problem than they were years ago. The basic dye chemical which is most allergenic is paraphenenediamine, used for dyeing furs, shoes, and some other leather products. The more troublesome factor in clothing is the formaldehyde-based preparations used in the manufacture of wash and wear or wrinkle-free articles. Occasionally nylon has been blamed for dermatitis. Rubber in clothing and in shoes often is an allergen. In shoes also dyes, plastics, the chromates in the leather, rubber cement, adhesives and nickel may be responsible. The resin in nail polish is the most common contact allergen in cosmetics. Most affected are the eyelids and in some instances also other parts of the face. Among the cosmetics producing contact dermatitis are hair dyes, hair lacquers and wave lotions; eye shadow and other eye products; deodorants, from which zirconium granulomas is one of the consequences; depilatories; creams and powders; perfumes, which may also induce photosensitivity; and suntan lotions, particularly those containing paraaminobenzoic acid. The latter chemical can act as a specific sensitizer, or by virtue of cross sensitivity to other chemicals, or as a photosensitizer.

Metals and their salts. Mercury is a potent sensitizer. Topical mercurial preparations used to be a common source of contact dermatitis. Now they are less frequently used, but mercurial antiseptics are still a problem. I have seen severe dermatitis produced from sublimation of mercurous oxide by amateur high school chemists, from the "silvering" of coins with metallic mercury, from the mercury of a broken thermometer and from amalgam used as dental fillings. Nickel, in costume jewelry, watch bands, garter clasps and similar items, and even from household articles or coins, is a common contactant. Chromium in alloys, as a constituent of cement in paints, or other chemical uses, not infrequently produces dermatitis, particularly occupational. Cobalt has been also implicated. Rostenberg believes⁴ that eczematous reactions to nickel, chromium and cobalt are not true allergies but rather examples of an enzymatic interference in a biochemically deviant individual.

Other topical medicinal products. Local an-

esthetics as used in surgery, in ointment for burns, or in suppositories, not infrequently produce contact dermatitis. We have seen also marked swellings of the face, several hours following the injection of procaine by the dentist, prove to be a true allergic phenomenon, as demonstrated by positive patch and delayed intradermal reactions. Substitute local anesthetics have to be used. Antiseptics producing contact allergy include mercurial products, sulfonamides, penicillin, streptomycin and the newer antibiotics. While Merthiolate is a mercurial compound it is thought that its thiosalicylic acid radical rather than the mercury is usually responsible. A recent case illustrates this. A woman suffered a severe acute eczematous dermatitis of the face following the use of an ointment for a very minor burn sustained from blowing out a candle. Patch tests with the ointment ingredients (gel base, tannic acid and Merthiolate) showed her to be allergic to Merthiolate. She then recalled that several years ago following a laparotomy she had a severe dermatitis of her abdomen, which we suspected was produced by the preoperative antiseptic, probably Merthiolate. Nevertheless, she used Mercurochrome with impunity. Among other topical products prone to produce contact allergy are antihistamines, ephedrine, quinine, and lanolin.

Miscellaneous contactants. Plastic, particularly in their manufacture, are a prolific source. Among these are the polyester and epoxy resins. The resins in adhesive plaster and material for light casts are allergenic. The most troublesome victim of plaster resin I have had was an orthopedist who finally had to get rid of his contaminated instruments before the condition could be cleared. Paints, lacquers, varnishes and toilet seats are a cause. Detergents are a common source, particularly under rings, while soaps and cleaners are less important. In photography, developers, hypo and dyes are potential sources. Wood working or kitchen ware, exotic woods, varnishes, lacquers and glues may be implicated. Toys may owe their source to plastics, varnishes, glues and dyes. Essential oils or such chemicals as hexachlorophene or dichlorophene, in tooth pastes; the coloring in toilet paper; the formaldehyde in room deodorizers or in wet-strength paper towels, may be other

causes. Pesticides in the home and industry; Thermofax copy paper in office workers; and resins, antioxidants, accelerators and formaldehyde products in the rubber industry, are among many other sources of contact allergy.

Diagnosis

A number of factors combine to identify the dermatosis as one due to contact allergy. Among these are the history of exposure, the delayed onset after exposure, the age of the individual (not common in youngsters, whereas atopic dermatitis occurs principally in youngsters), and the location of the lesions and their appearance. In many instances the specific agent can be suspected. This can be confirmed by the patch test; where no direct suspicion is present a number of patch tests are made with representative materials or those to which the patient is exposed. The patch test is made by applying the substance in question on a small patch of gauze fastened with adhesive to skin for about 48 hours. The material can be either the native substance (plant leaf, food, plastic, etc.) or a solution or an extract in a concentration determined to be nonirritating to the nonallergic skin. A positive test is indicated by itching, erythema and edema, which may go on to vesication. Patch tests may be negative for many reasons, but mainly because the area to which they are applied is not as sensitive as the area of dermatitis. With some substances, such as procaine and other easily soluble materials a delayed reaction from an intradermal test may be more reliable. It should be remembered that many times the specific diagnosis must be determined by history and observation rather than by skin test.

Treatment

The topical treatment depends on the character of the inflammation. If it is of a highly acute nature or vesicular or oozing the first treatment should be wet dressings, either of Burow's solution, 1:20, or cold saturated boric acid solution. In the subacute or chronic stage, or in the acute stage after it has become dry, topical steroid applications are indicated. Antihistamines orally can also help. In very severe or generalized dermatitis a course of oral steroid therapy may be indicated.

Avoidance is the most important treatment. Identifying the cause and learning to avoid it are the keystone of prophylaxis. A change of product, and under certain conditions, an environmental or occupational change may be indicated. Washing the skin after known exposure to the agent can be helpful. The use of protective clothing, rubber gloves or the use of a silicon cream may also be indicated in some instances.

The value of the usual method of specific treatment of contact dermatitis is questionable. In the first place, in the majority of the agents injections are not possible. In poison ivy dermatitis, the injection of a single dose of the ivy extract as a form of treatment would appear no more rational than the injection of a large dose of pollen extract when the person has hay fever. Actually the disease can be aggravated. Neither is there any real evidence that a series of three injections is adequate in prophylaxis. Perhaps if a fairly large series of injections were given with progressively increasing doses, as is done in desensitization in hay fever, the results might be more favorable. Actually this is the method we have used from time to time in attempting to obtain protection against contact dermatitis to the resin of leaf

and pollen of ragweed. It is perfectly possible, however, that the education of the patient in avoiding the weed and the manner of protecting his skin actually may have been the more important factor.

Summary

Contact allergic dermatitis is a common domestic and industrial disease and is caused by a variety of substances. It must be differentiated particularly from nonallergic contact dermatitis, atopic dermatitis and seborrheic dermatitis. The specific agent can be determined in some instances by the history, aided by patch tests. Treatment is mainly prophylactic and symptomatic.

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ISMS CONVENTION NEWS



IMPAC Meeting

Walter H. Judd, M.D.

- former Congressman from Minnesota (1942-1960)
- former US Delegate to the United Nations

Monday, May 18, 1964

Sherman House

Chicago

Skin Sensitivity to Cold

STEPHEN ROTHMAN, M.D. and
SYLVIA F. GRIEM, M.D., Chicago

URTICARIA IN RESPONSE to cold was observed as early as 1872. It was not until fifty years later when Duke in 1924 published a case of cold urticaria and propounded the concept of physical allergy, that the phenomenon drew general medical attention.

Since Duke's work much has been said and written about cutaneous sensitivity to cold, but no great progress has been made in solving such basic problems as to whether cold sensitivity is true allergy based on an antigen-antibody mechanism, and if so, how cold acts as an antigen. Furthermore, it is not known whether all kinds of cold urticarias, the idiopathic ones, and those associated with the presence of abnormal antibodies, have the same mechanism.

The two newest findings in cold urticaria have been the phenomenon of degranulation of basophiles of the blood under the influence of cold, and the therapeutic effect of penicillin. However, the claim for therapeutic effectiveness of penicillin is based on just two sporadic observations in recent months. This shall be discussed later.

We may classify the types of cutaneous sensitivity to cold on the basis of clinical and serological behavior as follows:

1. Cryoglobulinemia
2. Syphilitic paroxysmal cold hemoglobinuria

From the Argonne Cancer Research Hospital.
Operated by the University of Chicago for the
United States Atomic Energy Commission, and
Section of Dermatology, School of Medicine, Uni-
versity of Chicago.

Presented in the Allergy Section of the Illinois
State Medical Society Annual Meeting, May 14,
1963.

3. Cold hemagglutination
4. Essential cold urticaria
 - a. acquired
 - b. familial

Cryoglobulinemia

To test for the presence of cryoglobulin we cool the serum to 5°C, and observe the formation of a precipitate consisting of small discrete white particles that dissolve when the serum is rewarmed to 37°C. Cryoglobulins are abnormal gamma globulins occurring in many kinds of diseases; for instance, in very high amounts in kala-azar, and fairly regularly in multiple myeloma.

In two-thirds of the cases of cryoglobulinemia cold sensitivity is present. In all probability this sensitivity comes about by the precipitation of cryoglobulins in the cutaneous capillaries under the influence of cold. This precipitation leads to capillary thromboses. Correspondingly, the most common clinical manifestations are purpura, hemorrhages of mucous membranes and the retina, Raynaud's phenomenon, necroses, and ulcerations. In addition, cold urticaria occurs. The mechanism of cold urticaria in patients with cryoglobulins is as mysterious as that of any other type of cold urticaria. The lesion represents a fully developed histaminic triple response. While the sensitivity cannot be transferred with the total serum, it has once been transferred with the cold-precipitable fraction.

Ritzman has reported a decrease in the blood viscosity and an improvement in symptoms, including the abolition of cold sensitivity in patients with cryoglobulinemia treated with mercaptanes, penicillamine and vitamin B₆-SH, and large intravenous doses of penicillin. These patients' cryoglobulins were of the macro-

globulin type, and the improvement was attributed to the breakage of the disulfide bridges in these large molecules by these compounds.

The important point, practically, is that patients presenting with Raynaud's phenomenon, purpura, hemorrhages from mucous membranes or with cold urticaria of unknown origin should be tested for cryoglobulins.

Syphilitic Paroxysmal Cold Hemoglobinuria

Paroxysmal cold hemoglobinuria is a rare complication of late and congenital syphilis. Late and congenital syphilis themselves have become exceedingly rare, but in spite of the great rarity of this kind of remarkable cold sensitivity I believe it is worthwhile mentioning for several reasons: it is often associated with cold urticaria; we know a little about its mechanism; and we can cure this kind of cold sensitivity with antisyphilitic treatment.

In this condition a *cold hemolysin* can be demonstrated in the patient's serum. This hemolysin unites with erythrocytes in the cold and upon rewarming, in the presence of complement, causes hemolysis. Similarly *in vivo*, hemoglobinemia and, when the renal threshold is reached, hemoglobinuria occur when an individual with cold hemolysins is rewarmed after cold exposure.

Clinically, before passage of red urine there may be chills, fever, abdominal cramps, weakness, headache, backache, and sometimes, vomiting.

Inasmuch as cold urticaria may be the presenting symptom one should investigate the possibility of syphilitic paroxysmal hemoglobinuria in any patient with cold urticaria. At least one of the two cases which were reported to respond to penicillin may have belonged in this category, and the therapeutic effect of penicillin may have resulted from its antisyphilitic action.

We had the opportunity to observe a patient with this syndrome closely and found that antihistamines controlled the cold urticaria but not the hemoglobinuria. After initiating antisyphilitic treatment (this was in the pre-penicillin era) all symptoms subsided, but the seroreactions for syphilis remained strongly positive. It is known that the Wasserman reagent and the treponema immobilization antibody on one

hand and the cold hemolysin on the other are separate entities.

Cold Hemagglutination

Cold hemagglutinins occur in most healthy persons in low titers. High titers may accompany a variety of pathological states such as pneumonia, infectious mononucleosis, some tropical diseases, etc., but high titers may also occur idiopathically. The agglutination of red cells in the cold causes obstruction of circulation in the small cutaneous vessels. Gangrenes, ulcerations or, in milder cases, Raynaud's phenomenon and acrocyanosis may be the clinical manifestations. Cold urticaria never has been described. On trauma the agglutinated erythrocytes may lyse, and thus cold hemoglobinuria may accompany the cold hemagglutination.

Essential Cold Urticaria (acquired)

In essential cold urticaria, as in all allergic urticarial diseases and specifically in physical allergies, the onset is sudden. Horse serum injections, serum sickness, measles, scarlatina, chickenpox, childbirth, the taking of hot showers, the sting of an unidentified jellyfish, and many other heterogeneous events have been reported as initial precipitating factors.

If the degree of cold sensitivity is high and the local stimulus is intense, urticaria may be generalized, appearing in the non-cooled sites as well because of excess histamine production and histaminemia. In the case of swimming or taking a shower in cold water the patient with cold urticaria may suffer a histamine shock with peripheral vascular collapse. The danger of drowning under these circumstances is great.

The urticarial cold sensitivity may extend to mucous membranes resulting in respiratory symptoms such as nasal stuffiness, cough and dyspnea, and G.I. tract symptoms such as swelling of the mouth and lips, dysphagia, and abdominal cramping.

Some persons are sensitive only to cold air, others only to cold liquids or solids.

There is no absolute temperature threshold of the air or of the skin at which urticaria will appear. The advent of urtication depends rather on the slope of the declining temperature gradient within a limited period of time.

If we test the patient by contact with cold water (6-10° C) for 6 to 10 minutes or with exposure to ice for 20 to 30 seconds, there is a considerable vasoconstriction which does not permit the triple response to develop. One has to wait until the skin rewarms in order to observe the reaction.

Dr. Sylvia Griem in reviewing the literature found atopic family histories in one-third of the cases of cold urticaria in which this inquiry was made.

It often has been reported that patients with urticarial cold sensitivity can be "desensitized" which means that by very cautious and gradually intensified cold exposures some tolerance can be acquired. Spontaneous "desensitization" also has been reported. Improvement in this way, however, is usually only partial and temporary.

In our experience and in that of many other observers antihistamines very satisfactorily control essential cold urticaria while the results with ACTH and corticosteroids are less satisfactory. Moreover, corticosteroid therapy requires much closer supervision because of the danger of serious side-effects, and in a chronic condition such as cold urticaria this is an important consideration.

Familial Cold Urticaria

This condition is inherited as a non-sex-linked Mendelian dominant gene and has been observed in a number of families through several generations. In these cases urticarial reaction to cold is usually present at birth or shortly thereafter. It usually lasts throughout life.

With regard to the clear-cut genetic pattern of this disease Rostenberg pointed out that such pattern with the identical clinical picture is never observed in true allergic states, and therefore he believes that this form of cold urticaria, at least, is not an allergic disease.

Mechanism

There are two schools of thought about the nature of cold urticaria.

One group of workers (to which we belong), believes that cold urticaria, like all other physical allergies, is a truly allergic process with an antigen-antibody mechanism. Our assumption is that the physical action, in our case cold exposure of the skin, causes the alteration of a tissue component converting a metabolite X to metabolite X prime, to use an expression of Sulzberger, and metabolite X prime is then the specific antigen which elicits the formation of specific antibodies directed only against the antigen X prime which is, of course, formed in the skin only under the influence of cold. We believe that the positive passive transfer tests support this view.

Other workers have emphasized the failures or at least the difficulties of getting passive transfers. Dr. Griem has reviewed the world literature from 1929 to 1955 on passive transfer of urticarial cold sensitivity and found thirty positive and twenty-four negative attempts. The opponents of the allergic theory also emphasize that passive transfer can be interpreted not only by assuming antibody transfer but also by assuming transfer of some other abnormal serum constituent. Thus far no potential antigen has been demonstrated in cooled skin.

Finally there is the view that low temperatures merely facilitate the reaction between antibody and a pre-existing antigen present in normal human skin, a mechanism similar to that in cold hemagglutination. All these possibilities are mentioned briefly only to show that cold urticaria merits more intensive research.

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Syphilis



The New Epidemic

EVAN W. THOMAS, M.D., Chicago

Reported cases of infectious syphilis in the United States tripled between 1947 and 1962. Confronted with a new epidemic of this order, one would like to compare the post-World War II-curve of syphilis incidence in civilian populations with the incidence following previous wars. Unfortunately, however, with the exception of the Scandinavian countries, morbidity data of syphilis in civilian populations are practically useless prior to the 1930's.

In the United States morbidity statistics on syphilis have little or no value prior to 1936 by which time Dr. Thomas Parran's crusade to free syphilis from its hush-hush atmosphere and to obtain something like adequate reporting of cases had begun to take effect. By 1936 most of our states had laws or sanitary code regulations requiring that syphilis be reported to health departments. Even with these laws the reporting of syphilis left much to be desired and still does in some sections of the nation. The one thing we can be sure of is that syphilis

has always been much more prevalent than indicated by reported statistics.

Even in the absence of reliable morbidity data we can be reasonably certain from the literature on syphilis of previous centuries that the disease has become less virulent than when first recognized at the close of the 15th century and that in past centuries it was prevalent in all classes of society. There were periods when the disease was probably even more prevalent in aristocratic and well-to-do circles than among craftsmen and peasants. Rumor has attributed syphilis to many famous persons, including royalty, popular leaders, writers and artists. In most cases it is impossible to verify the rumors by medical documents but it can be said without controversy that few diseases have had so dramatic and so varied a history as syphilis with so scant a volume of reliable epidemiologic data.

Efforts to control the infection had to contend not only with the social stigma attached to venereal diseases but also with the sophistification of the *T. pallidum* which refuses to grow

Consultant to Chicago Board of Health.

in artificial media yet has taken advantage of every possible weakness and error in the long evolution of immune mechanisms in man. Text books on immunology avoid discussing syphilis apart from the laboratory tests used as aids to diagnosis, yet no other disease provides such varied and impressive proof of our ignorance of immunologic mechanisms as syphilis.

The hypersensitive reactions of late syphilis includes chronic inflammations with necrosis of parenchymatous tissues and nerve atrophies unassociated with inflammation. The lesions in the cardiovascular and central nervous systems begin early in the late stage of the disease or not at all, but the relatively explosive gummas of sensitized tissues may start at any time during the chronic stage. Treponemes are found with great difficulty in all late lesions with the exception of the meningoencephalitis of general paresis. How the body reduces the invading organisms to such minimal numbers without eliminating the infection is unknown, as are the immunologic mechanisms responsible for the varied reactions to a few organisms in many but by no means all late cases.

Under these circumstances it is not surprising that in past centuries no disease, with the exception of cancer, has had so many quack remedies as syphilis. The disconcerting thing from a medical standpoint is that the disease has been so widely neglected by scientific medicine throughout the greater part of this century. Consequently the infection is easily overlooked in medical practice and all too frequently overtreated. The fact that serologic tests for syphilis do not, as a rule, become negative following curative therapy of late syphilis is still unknown or disregarded by too many practicing physicians. Obviously no treatment can restore normal function to permanently damaged parenchymatous tissues, but we have ample evidence that modern treatment can cause healing of active late lesions despite continued reactivity of serologic tests. It does not require more than 4.8 to 6 million units of procaine penicillin in oil and aluminum monostearate to cure the vast majority of patients with syphilis, whether asymptomatic or symptomatic. But infectious diseases are not controlled by treatment alone. Consequently, if the new epidemic of syphilis is to be controlled, we must concentrate on its epidemiology. We know

that, from the time it was first recognized, syphilis has been endemic throughout the world in the sense that there has been a constant reservoir of infection within all populations and this has given rise to many local and widespread epidemics.

It is commonplace that syphilis epidemics have always been associated with wars, yet up to World War II the only fairly adequate data available to prove the extent of the epidemics in war are statistics of the armed forces of numerous European nations, Britain and the United States. These data go back as far as the early years of the 19th century. They were reviewed in an illuminating article by the late Dr. Joseph Earle Moore of Johns Hopkins Hospital in the March 31, 1951 issue of *Lancet*. From military data Moore was able to prepare fairly accurate curves of the incidence of syphilis in the armed forces during and after wars. He found that the incidence always increased during wars only to fall to pre-war or lower levels within 4 or 5 years after peace was established. From these observations, as well as from his own experience during and after World War I, Moore insisted that the declining incidence of infectious syphilis after World War II could not be attributed primarily to penicillin and warned that we could not rely on treatment to control the infection. The wisdom of this warning was well known to public health personnel working with venereal diseases, and the public health service at no time relaxed its efforts to improve epidemiologic programs, in spite of cuts in available funds.

Unfortunately, so far as the public and medicine as a whole were concerned, the advent of penicillin was accepted as having solved a problem which formerly seemed insoluble. As a result many medical schools dropped practically all instruction about syphilis from their crowded curricula and hospitals were eager to avoid the expense and trouble of routine serologic tests for syphilis.

This is easily understood because in 1955 when I retired from active practice, it looked as though penicillin, with the aid of public health epidemiology, might well be on the way to controlling syphilis within the lowest socio-economic groups of society. By 1955, rates of primary and secondary syphilis per 100,000 population in the United States had fallen from a

high of 75.6 in 1947 to 4.1 and they continued to drop in the country as a whole to the end of fiscal year 1957 when the rate was 3.7. A fall of this magnitude lasting for a decade was certainly unprecedented in the recorded history of syphilis and, had it not been for increases of reported new infections in some of our large cities starting in 1955, it seemed as though syphilis in time might decline to the same extent as chancroid and lymphogranuloma venereum. In the 1930's and early 40's the latter infections were common in our large cities but by 1955 they were rarely observed in the clinics of any northern city. The sulfa drugs and tetracyclines provide extremely effective treatment of chancroid and they are also helpful in the treatment of lymphogranuloma venereum but infectious diseases are not controlled by treatment alone. I have no explanation of the relatively rapid disappearance of these diseases unless we can attribute it to improved personal hygiene in the lowest socio-economic groups or to alterations in the virulence of the organisms. Whatever the explanation may be, all hopes that syphilis might imitate chancroid and lymphogranuloma venereum were dashed by the relatively rapid and marked increase of reported infectious syphilis starting at the end of fiscal year 1957.

This resurgence of infectious syphilis has not been confined to the United States, since increases of varying degrees have been reported in Britain, the European continent and other countries. It almost looked as though we had to wait for a new generation of young people to reach sexual maturity following World War II before a new epidemic of infectious syphilis could originate. This too facile explanation, however, does not stand up when we examine the record because the increase of newly acquired cases is by no means confined to youngsters. What we find in our epidemiologic studies is that the increased incidence of early syphilis has occurred predominately in two specific groups, both of which are sexually promiscuous and do not use local contraceptives. The larger group consists of males who give homosexual contacts, and the smaller group comprises young people of both sexes under 24 years of age. It is not within the scope of this paper to engage in controversy over local contraceptives, but I am convinced

that they have provided a significant prophylaxis against syphilis. The declining incidence of syphilis in middle class people since World War I cannot, of course, be attributed primarily to contraceptives because, since World War I, I think there has been less promiscuous, depersonalized sex by middle-class males. This does not necessarily mean less sexual activity out of marriage, but it does mean less sexual contact with relative strangers and a more prevalent use of local contraceptives.

The present increased incidence of early syphilis among teenagers of both sexes as well as increased rates of illegitimate children born by teenaged girls presuppose increased sexual promiscuity by large numbers of teenagers, not all of whom are in the lower socio-economic groups. Why this should have increased since 1955 or 1957 is difficult to determine. Undoubtedly there are numerous reasons for it, but the chief cause seems to be lack of employment and boredom. Young people who drop out of school or who cannot find employment after graduating from high school are candidates for irresponsible sexual promiscuity.

Elsewhere the major source of the new epidemic is males who have homosexual relations. These individuals are not easily spotted and they are by no means confined to the lower socio-economic groups. Many of them are diagnosed and treated by private physicians. A careful examination of all body orifices is essential for the discovery of early syphilis lesions in these patients. I have no means of knowing whether homosexuality has increased in recent years, but there can be no question that the reservoir of infectious syphilis among male homosexuals has risen markedly. The significance of the problem is shown by the ratios of male to female early syphilis infections over the years. Among whites in the United States during the years 1941 to 1952 the ratio of male to female early infections varied from a low of 1.04 in 1945 to 1.83 in 1952. Since 1952 the ratio has risen each year until it reached 5.14 in 1960 the last year for which I have these data. For non-whites the ratio rose from a low of .87 in 1945 to a high of 1.58 in 1960.* Obviously, if

*Data provided by the Venereal Disease Section of the Communicable Disease Center of the Public Health Service.

we could eliminate males who have homosexual contacts, the new epidemic of syphilis would be less marked, if not less disturbing.

Homosexuality is an ancient phenomenon and I have no knowledge as to its social significance. As one who is interested in the epidemiology of syphilis I am concerned primarily with lowering the reservoir of infections in the groups where the incidence is greatest. This will be a hopeless task without the full co-operation of private physicians in epidemiologic efforts, because the majority of white male homosexuals who acquire syphilis are private patients. The interviewing of homosexuals for contacts and associates is a delicate task. Few physicians have the time to do it well. Furthermore, it is not sufficient merely to be informed about contacts; they must also be found and examined.

The public health service now provides all of our largest cities with lay epidemiologists who have received special training in interviewing and in contact tracing. They are available for interviewing private patients with the consent of the physician in charge. The interviews are conducted in strict confidence and with the utmost regard for the patient-physician relationship. It is obviously in the interest of the patient and his associates that infectious individuals be found and treated. The lay investigators have found that many homosexuals are glad to co-operate in helping to find possible infectious cases among their associates, once they are convinced that this can be done confidentially and without prejudice or condemnation. In some instances the lay investigators have obtained male contacts from infected males whose homosexual proclivities were unknown to their physicians. Patients with syphilis, as a rule, do not go to physicians to reveal their homosexual practices but to be cured of their syphilis. Many of them are very intelligent and they are quite willing to assist in case-finding when they understand that it can be done confidentially and without embarrassment to themselves.

An epidemiologic program involving interviewing and contact tracing is arduous and time-consuming and it cannot yield significant results in controlling the infection unless the great majority of early syphilis cases are interviewed. Whether or not this can be achieved depends on the cooperation of private physi-

cians who make their infectious patients available for interviews. This means prompt reporting of all early cases of syphilis as well as seeing that patients are interviewed. If we could find less difficult means of case finding than the troublesome task of interviewing patients and tracing contacts, I am sure public health authorities would welcome them. Unfortunately, experience has proved that neither mass blood testing nor any other methods have proved as successful in finding new cases as finding and examining the contacts and associates of known infectious cases.

In Chicago where a high percentage of private physicians who diagnose syphilis have co-operated with epidemiologic programs, the rising incidence of newly acquired syphilis has been checked since 1960. This cannot be attributed to poorer reporting of cases because there has been a steady improvement in reporting by physicians and private laboratories. In 1954 only 231 cases of primary and secondary syphilis were reported in Chicago. In 1960 this figure has risen to 943, falling to 920 in 1961 and to 851 in 1962. In the last two years from 35 to 40 per cent of all of the primary and secondary syphilis reported in Chicago was found by the epidemiologic program. Obviously there is no guarantee that this lowering trend in Chicago will continue as long as infectious syphilis is on the increase in the country as a whole. There is no prospect of lowering the incidence of infectious syphilis until the numbers of new cases, which are found and treated each year, greatly exceed the early infections which go untreated. Rising trends over several years always suggest that more infectious cases go unrecognized than those known and treated. The great majority of syphilis cases found for the first time are in the late latent or late rather than the early infectious stage. At present with the aid of penicillin and other antibiotics we are preventing late manifestations remarkably well, but unless we bring our case-finding programs to their maximum, the day may come when we will again encounter more late symptomatic reactions. If this is to be prevented, and the increased incidence of early infections is to be reversed, all medical facilities must be informed not only about the diagnosis and treatment of syphilis but also accept full responsibility for its epidemiologic control.

The View Box

LEON LOVE, M.D., Chicago



Figure 1

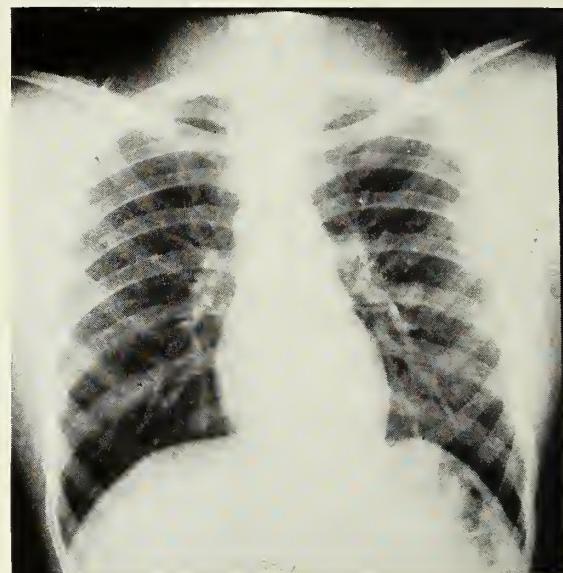


Figure 2

This 13 year old, Negro male entered the hospital with a painful, swollen left ankle of 3 weeks' duration. (Fig. 1)

He was treated for this condition and about 6 months later a chest film was taken on 3/22/60. (Fig. 2)

One month later he had a sudden attack of left sided chest pain (Fig. 3). This subsided and a film was taken on 5/12/60 (Fig. 4).

What is your diagnosis:

- 1) Parasitic disease with pulmonary involvement
- 2) Osteomyelitis with septic emboli to the lung
- 3) Osteogenic sarcoma with cavitating pulmonary metastases
- 4) Tuberculosis with lung and bone involvement

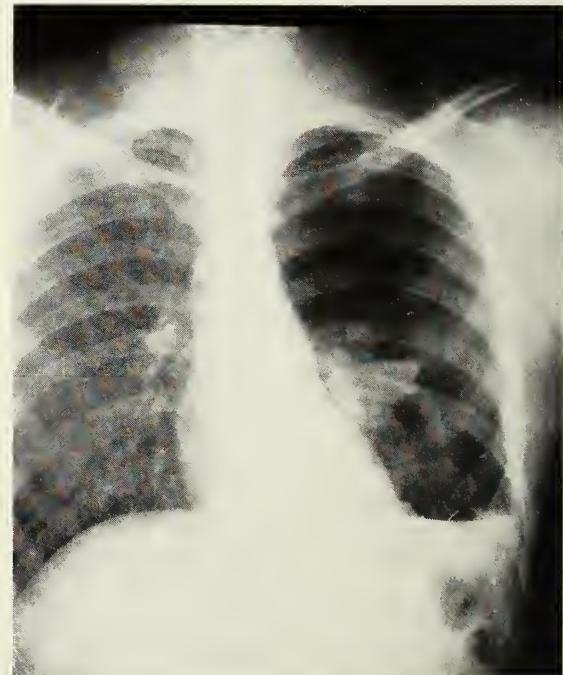


Figure 3

(continued on page 458)

Radiology in This Century

HOWARD P. DOUB, M.D., *Detroit*

A fiftieth anniversary is a proud achievement and one to be cherished in humble pride. The Chicago Roentgen Society is to be congratulated on the high place it occupies in radiology, and on its many distinguished members who have contributed to the development of our specialty.

The science of radiology also has a proud history which deserves an occasional review, while those with a factual memory of its events are still with us. We will indicate some of the steps in the growth of this relatively recent specialty of medicine which has become of such importance in both diagnosis and therapy. It is obvious that we cannot cover more than a few of the significant discoveries, and while reference will be made to many of the pioneers in radiology, unfortunately we cannot mention all the early workers who deserve credit.

The apparatus available in the early days was probably the greatest limiting factor in the development of roentgenology. During the first 15 years, the apparatus and tubes were of such fragile construction and unreliable performance that much of the operator's time and ingenuity were required to produce even reasonably satisfactory results. The Coolidge tube came into use about 1913. This marked the beginning of modern technic, although the "gas tube" in an improved form continued in sporadic use for another decade. The introduction of the closed core A.C. transformer with mechanical rectifier about this time forever freed the roentgenologist from the induction coil, static machine, and mercury interrupter. The

designing of the grid by Potter, was one of the greatest technical advances in radiology. Bucky had tried to counteract the blurring effect of scattered rays by a series of metal tubes through which the rays passed to reach the film, but the superimposed image precluded its use. Potter ingeniously solved this problem by the use of a segment of a sphere composed of metal strips which when put in uniform motion cast no shadow. This made possible good diagnostic radiographs of all thick parts. In later years, valve-tube rectification, shock-proof tubes, photoelectric timers, better screens and cassettes, improved films, and modern processing contributed to the further development of modern radiology. Kymography, planigraphy, spot-film roentgenography, cineradiography, and image intensification also were great forward strides.

The Skeleton

Bone roentgenography in America prior to World War I was influenced by such European workers as Köhler and Kienböck. Köhler's monograph on the *Borderlands of the Normal and Early Pathologic in Skeletal Roentgenology*, translated by Turnbull, was a constant source of reference. In this country the first major contribution on the subject was the monograph by Baetjers and Waters. Notable work was also done in America on bone tumors, especially by Codman and Bloodgood, and by the Bone Tumor Registry. It is impossible to comment individually on the many good bone studies during the past 25 years, but important contributions have been published on metabolic diseases, growth, and dynamics of bone on a cellular level, on the spine, and on a better classification of congenital bone disease. Studies such as these have tended to give radiology an

**Editor of RADIOLOGY, Consultant in Radiology,
Henry Ford Hospital, Detroit, Michigan.**

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independent status so that it is no longer considered merely an adjunct to surgery.

The Chest

In 1896 and 1897 Williams published reports of x-ray examinations of the chest in pneumonia, emphysema, and movements of the diaphragm. These were the earliest accounts of thoracic roentgenology. A notable review on this subject by Crane of Kalamazoo appeared in 1899, in consequence of which this author was made a member of the London Roentgen Society. In 1902 Hulst of Grand Rapids, Mich., exhibited the first radiograph of the chest made without the use of an intensifying screen. Many radiologists continued to prefer the fluoroscope for this purpose, but its routine use was gradually abandoned, as intensifying screens improved and better apparatus permitted more rapid exposures.

In later years the diagnosis of tuberculosis was placed on a firm basis by such men as Dunham, Cole, Crane, Pierson, and many others. Pancoast and Pendergrass made distinguished contributions on the diagnosis and classification of pneumoconiosis. Moore reported important work on bronchiectasis. Many reports on cancer of the lung were published; in this field Rigler, who is here tonight, did as much to correlate the findings as anyone. The introduction of iodized oil by Forestier and Sicard facilitated examination in many lung diseases and was helpful in differential diagnosis.

The Gastrointestinal Tract

In the tremendous field of roentgen diagnosis in gastroenterology, the first practical studies were made by Cannon on the intestine of the cat in 1898 and by Williams and Cannon on children in 1899. In 1904 Rieder published a valuable monograph on alimentary topography and physiology. Reiche in 1909 was probably the first to demonstrate a proved gastric ulcer. Haudek's description of ulcers in 1910 helped to establish a pathologic basis for study of this entity. In 1910 Cole laid stress on peristalsis, and in 1912 discussed serial radiographs of the stomach. About this time, two schools of thought developed in this country: one led by Cole laid stress on direct evidence of pathology as

demonstrated on serial films; the other, probably best exemplified by Carman, depended on fluoroscopy supplemented by radiographs.

Barium sulfate was first used in roentgenography of the colon by Haenisch about 1911. In 1923 Fischer introduced the double contrast enema which has played such a large role in x-ray examination of the colon. Notable contributions in this field were also published by Case, Moore, LeWald, George Pancoast, Pfahler, Kirklin, Orndoff, and many others. The main advances in the last 20 years have been refinements of technic and a better understanding of anatomy and physiology.

The first x-ray studies of the gallbladder were made about 1910. Pfahler and Case emphasized that indirect signs were important when calculi were not demonstrated. The chemical content of calculi made their positive visualization frustrating. In 1923 Graham and Cole of Washington University revolutionized this examination by the introduction of intravenous cholecystography. This physiologic study tested the function of the gallbladder as well as demonstrated its gross anatomy and pathology. Work by Menees and Robinson, Milliken and Whitaker, Sosman, and others established the oral method of gallbladder roentgenography. The use of the fat meal by Boyden, as a test of emptying, further increased the value of this procedure. Many new drugs and refinements of technic have established cholecystography as a truly valuable roentgen examination.

Urology

Calculi were the main interest in early roentgenology of the urinary tract. It was found that those containing calcium oxalate and phosphate showed the greatest density while stones composed of uric acid showed little density and were frequently invisible. Early attempts at opacification were unsatisfactory, but in 1905 Voelcker and Von Lichtenberg published the first report on successful examinations of the urinary tract. They employed Collargol, a colloidal silver compound. Other colloidal silver compounds were also utilized but three preparations had toxic and corrosive effects, so that their use in urology lagged. In 1918 Cameron suggested aqueous solutions of sodium and potassium for these x-ray examinations, and others employed sodium bromide. In 1922 the ha-

logenated oils such as Lipiodol, Iodipin, Campiodol, and the like were employed with success.

In 1930 a new era in pyelography began with the introduction by Von Lichtenberg and Swick of intravenous urography with Uroselectan. Many other compounds have since been used for this examination and have also been successful in retrograde urography with a decrease in undesirable after-effects. The modern refinements of the technic of intravenous urography have added another brilliant page to diagnostic radiography.

Contrast Media

The increasing use of contrast media has probably had more influence on diagnostic radiology than any other factor during the past 50 years. In the earliest years following Roentgen's discovery, the prevalent opinion was that the usefulness of x-rays would be limited to the study of the skeletal system and the location of foreign bodies. It was not long, however, before the chest, which essentially presents a contrast between air and soft tissues, was under investigation. Contrast studies of the gastrointestinal tract soon followed and, a little later, of the urinary tract, spine, gallbladder, spinal canal, bronchi, sinuses, etc. The uses of air and other gases, as low-density contrast media, in the thorax, abdomen, perirenal tissues, ventricles and spine, uterus and tubes, and other areas were forward steps.

The development of angiography on a clinical basis was begun in 1931 with thorium dioxide as the contrast agent. Cerebral angiography was demonstrated by Egas Moniz in 1927 and, after many improvements in technic, has become a routine procedure. Demonstration of the abdominal aorta and its branches was reported by Dos Santos in 1929. This has proved to be a development of outstanding importance not only in the diagnosis of lesions of the aorta and its branches but also in examination of the abdominal organs. In 1938 Robb and Steinberg introduced angiography of the heart and also of the lungs, and at about the same time Castellanos, Fereiras, and Garcia applied this method in the examination of children. The requirements of modern angiocardiography have been instrumental in the perfection of other technics, useful in all roentgen diagnosis, such as rapid film changes, image amplification, and cine-

radiography. Lymphography was first attempted in the early 1930's and has recently been the subject of important work. Splenoprtography has been developed in recent years and has now become a relatively safe clinical procedure.

Therapy

Such effects of x-rays as erythema and the epilation which often follows examination of the skull were probably the scientific basis for the introduction of radiotherapy. E. H. Grubbe, a tube manufacturer of Chicago, was the first man in America to institute roentgen therapy—in a case of carcinoma of the breast.

The therapeutic approach was necessarily elementary until the introduction of the transformer and mechanical rectifier, and later the hot cathode tube in 1913. Various biological investigations were made of the body tissues and the blood. In 1904, after a series of investigations, Bergonie and Tribondeau formulated their law which stated that "Immature cells and cells in an active stage of division are more sensitive to radiation than are cells which have already acquired their adult morphologic and physiologic characters."

In 1905 Pfahler introduced filtration in America. He used leather for that purpose, reasoning that it would be suitable for elimination of those rays which produced the troublesome erythema and would yet permit radiation of the deeper structure. This material was followed later by aluminum, copper, tin, lead, and combinations of these metals. The Thoraeus filter, a combination of tin, copper, and aluminum, was an important arrangement.

The dosage employed in the earlier days was largely on an empirical basis. If the kilovoltage, milliamperage, filters, distance, portal size, and time were carefully documented and the clinical effects evaluated, a safe and fairly accurate dose of radiation could be administered. Early measurements of the output of radiation were based on such methods as that of penetration (Benoist), physicochemistry, and photometry which compared brilliance of fluorescence with known standards. An important step was taken when Duane, Szilard, and Friedrich independently defined units for measuring the quantity of radiation, based upon the ionizing effects in a unit volume of air. This led to the develop-

ment of "isodose curves" by Friedrich and Glasser in 1922. The production of the small thin wall chamber by Fricke and Glasser in 1924 was an important breakthrough. In 1928 when the International Congress of Radiology in Stockholm adopted, by international agreement, the "roentgen" or "r" unit, the standard for dosage measurement was firmly established.

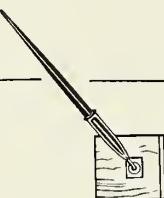
Various systems of roentgen therapy have been advanced from time to time. In 1920 Seitz and Wintz advocated the massive dose technic in which the full "erythema dose" was administered in the shortest possible time. About 1914 Regaud of Paris suggested that small intensities applied over a long period might hit neoplastic cells during the various phases of mitosis. A modification of this method was suggested by Kingery for skin diseases and later by Pfahler for treatment of deeper lesions. In this technic an attempt was made to maintain a radiation saturation over a long period by taking account of the *per diem* loss. Out of this work came the familiar Coutard method with its advocacy of two small doses of highly filtered radiation each day from twenty-five to thirty-

five days. Another technic, advanced by Heublein in 1932, was total-body irradiation by small intensity over a long time period.

The general tendency in therapy during the past 40 years has been a gradual increase in the voltage potential, and today the use of megavoltage is commonplace. The use of radium as a therapeutic agent has been known since the turn of the century. In recent years isotopes of cobalt, cesium, and other elements have occupied a prominent place in radiotherapy. Time does not permit a discussion of these later developments.

Summary

I have recounted but a few of the steps taken in the development of radiology, the specialty which occupies such a prominent place in modern medicine. This recapitulation of some of the almost forgotten successes and failures of the pioneers in radiology has had nostalgic overtones; we have had to omit mention of so many men who deserve credit and recognition that a more complete story needs to be told.



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The first page should list the title, the name of the author (or authors), degrees, and any institutional or other credits. The title should be as short as possible. Pages should be numbered consecutively. Tables are to be typed, numbered, and accompanied by a brief descriptive title. Make drawings and charts in black ink. If photographs are submitted, send black and white glossies. Number illustrations consecutively and indicate their place in the text. Number, indicate the top, and place the author's name on the back of each illustration.

Address manuscripts to T. R. Van Dellen, M.D., Editor, Illinois Medical Journal, 360 N. Michigan Ave., Chicago 1, Illinois.

Problems in Pharmacology and Clinical Testing

R. K. RICHARDS, M.D., Chicago



Who is an investigator? What qualifies a man as an investigator? For example, what is his motivation? Is he motivated, and is he qualified, not only scientifically, but is he qualified morally and spiritually? What are the problems of experimental design? What is the opinion of a Blind type of study? How is bias removed?

I would like to have Dr. R. K. Richards briefly review this subject. Dr. Richards received his original training in medicine at the University of Hamburg in Germany and did graduate work at the University of Berlin. Just a year ago, he was honored singularly by the University of Hamburg, and has been made Professor Emeritus of Pharmacology. He is currently Professor of Pharmacology at Northwestern University.

VINCENT J. COLLINS, M.D.
Moderator

Let me first correct a frequent misconception, namely the idea that Pharmacology is the study of drugs in animals and everything after this is clinical medicine. There is no basis for this assumption which is, in part, caused by the attitude of many pharmacologists who were not trained as physicians and looked upon their science as an outgrowth of biology rather than a part of medicine. This tendency was more prevalent in the Anglo-Saxon countries than in central Europe where, for practical purposes, all pharmacologists are medically qualified. However, in recent years in an increasing number, our Ph.D. colleagues have taken an interest in human pharmacology and we should welcome them in their proper place. Let us not forget that many members of a recognized clinical branch of medicine, namely the psychiatrists, professed very little interest in drug therapy until barely ten or twelve years ago.

I am quite impressed with the quality and

quantity of information which has been accumulated in recent years on the subject of clinical Pharmacology and its direct relationship to drug testing in man. I am, therefore, most gratified to know that two very important aspects, namely the industrial development of drugs and the regulatory issues, as well as the ethical considerations are so well represented on this panel by most qualified speakers. I should like to state at this time, that the opinions expressed by me here are my own and do not necessarily represent those of any institution with which I have professional connection.

We cannot, in this brief talk, fathom all the intricate aspects of the meaningfulness of experimentation and studies of a drug in animals as related to human trials. However, we must spend some time on it especially on its limitations. The purpose of the animal trial is bi-fold, namely first to establish presumptive usefulness of a new drug for a particular human disease and secondly, its presumptive safety. The predictive value of animal tests, or let us call this factor simply its "competence," will vary tremendously from problem to problem. Just a few examples will serve as an illustration. A

Part II of the proceedings of the Symposium
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Chicago.

drug found to exhibit local anesthetic properties in animals or showing strong atropinic action will have a high probability of exerting the same effect in humans. A powerful stimulant of respiration is quite likely to cause corresponding effects under clinical conditions.

However, there are, unfortunately, many examples on the other side, such as the relatively poor competence of animal studies in the area of analgesics of intermediate potency and in anti-tumor therapy. This problem becomes even more complex when dealing with diseases of bacterial or parasitic character. We have to deal with the problem of the famous triangle between causative agent, host and drug and often must substitute other strains of the causative agent in the animal for the human parasite. Such is the case, for instance, in the investigation of anti-malaria agents or with most worm infestations. The problem of differences among animal species is well known. However, our understanding in this area is growing somewhat as we learn more about the biochemical capabilities of the animal in human organism. Brodie and his co-workers at the N.I.H. as well as others have made remarkable contributions to this subject.

Some experiments are conducted where even known facts are disregarded. I have seen tests undertaken for the tolerance of the hematopoietic system versus drugs in which rodents were used, a species which is known to be insensitive to methemoglobin formation. I could go on with more examples without adding materially to the point. Indeed, a competent pharmacologist must often search far and wide to collect data on the important area of comparative biochemical Pharmacology. I can only hope that modern techniques of data collection and retrieval will come to the rescue. Our general limited knowledge in this area cannot only lead to disappointing results in man but can also lead to premature abandonment of a potentially valuable agent. A good example is given by the admission of Fleming, the discoverer of penicillin, namely that had he used quinea pigs instead of rabbits for the first tests of this antibiotic he probably would have discarded it. Guinea pigs are peculiarly sensitive to this agent and frequently die within a few days even after a single moderate dose. Some

years ago, I studied the effect of a special series of barbiturates. Upon injection in mice, all produced convulsions instead of sleep as was hoped. In rabbits, convulsions occurred with most of these drugs except a few which produced sleep. With dogs, and finally Rhesus monkeys, the number of compounds still causing convulsions was reduced more and more in favor of sleep until finally only one remained convulsant in the monkey. When this was later cautiously tested in humans as a possible substitute for Metrazol® in therapeutic convulsions no convulsions, but sleep, actually ensued.

Let us be mindful of the fact that the confirmation of a specific pharmacologic effect in human trials does not prove the therapeutic value of a drug. Many other factors enter into this, the most important being, of course, that of safety. It is this consideration that gains paramount importance for the first clinical trials in humans and stays with the drug throughout all of its future history. It is this feature which, more than anything else, calls for and usually receives the concerted effort of the pharmacologist, toxicologist, biochemist, microbiologist, pathologist, etc. I shall leave to better minds the struggle for the optimal definition of safety, a term having, in this connection, both scientific as well as legal connotations. For our purpose here, let us understand under safety the possibility of administering a drug so that its therapeutic properties can be demonstrated without, at the same time, causing significant discomfort or serious consequences to the individual. It is clear that the limits of the meaning of this definition will change somewhat at the various stages of the trial and ultimately with respect to the clinical indications and usefulness of a drug. Safety may become a more relative conception as everyone will agree to accept a more risky drug for the treatment of life-endangering diseases than for more trivial ones. The concept of the weighted risk becomes thus applicable and acceptable. The technical performance of trials designed to ascertain presumptive safety in animals, their duration, the species to be used, etc., cannot be discussed in this presentation. I believe, however, that enough has already been said by Dr. Klumpp to emphasize the complexity of the problem and the limitation of the com-

petency values of the various procedures used. In many years of experience I have gotten the impression that the appearance of a particular sensitivity or side reaction in any species of common laboratory animals may occasionally show up in the same or a modified form in extensive clinical trials, even if not observed in the initial studies in man. Facetiously speaking, it seems that there are always a few people around whose biochemical make-up may simulate a dog, a cat or a rabbit relative to a certain chemical compound. An area where animal trials usually let us down is the so-called allergic reactions in humans, such as skin rashes, perhaps certain types of blood dyscrasias and of certain liver manifestations. Probably not of allergic origin but equally unpredictable in animal trials is the occasional occurrence of loss of hair with certain drugs in man.

The judgment as to the presence of presumptive safety at the end of animal trials is a composite one in the sense that it is composite with respect to the variety of test data and composite by the need for combined appraisal by those who have worked with the new drug and are trained and experienced in the interpretation of such data. It is only logical that this group of investigators which should include medically trained personnel would prepare the direction for the first trials in humans. These instructions are usually written in concise technical terms because they are directed to investigators who must be skilled in the particular field where the new drug is to be tried and studied. This skill is a must. Since the safety of a human, be it a patient or volunteer, is naturally our first concern, all organizational, internal or other considerations should only serve but not hinder this supreme purpose. No direction, no matter how well written, can reflect the total knowledge and experience of the experimental investigators. For this reason, close and unencumbered contact between them and those undertaking the trials is highly desirable whenever possible. It seems logical that if this personnel includes medically properly qualified persons they should carry the responsibility and supervision of the first trials in humans together with those actually responsible for patient care in the particular institution, and the cooperation of the physicians who

will follow closely the further development of the item in the future.

Out of this borderline between experimental and clinical sciences arises now the new discipline of Clinical Pharmacology. There may be some need for defining more clearly what can be called human Pharmacology, Clinical Pharmacology and therapeutic trials. We shall not attempt here to do so, however it is important to recognize that the very first trials in humans, perhaps best called Human Pharmacology, are designed to confirm hopefully, the assumption arising from animal trials, namely the presence of the desired pharmacologic effect and safety in humans. Careful planning with the help of competent statistical advice tries to obtain a maximum of data from a design having a minimum of variables. Often it is possible to achieve a limited dose-response curve together with careful notation of first side effects. Clearly, the first dose should lie far below the one which produces demonstrable effects in the most sensitive animal species used. Careful consideration has to be given to the spacing and increment of the doses used, keeping in mind the possibility of delayed action and possible cumulative effects. My own clinical experience in the study of picrotoxin as a stimulating agent many years ago have impressed upon me the importance of these factors. Personally, I am inclined to resort to gradual intravenous administration of a new agent if the nature of the substance and other factors possibly permit. So much for some of the technical aspects of first human pharmacologic investigations. You are all familiar with the term and meaning of the "double-blind" test, a very valuable technique to exclude bias by keeping doctor and patient unaware of the identity of the medication. Let me state that, in my opinion, this procedure has no place in the first trials in human Pharmacology. Here, the doctor must know what he is giving so that he can act quickly without any doubts in his mind. The double-blind test comes into its fullest value at later stages of the evaluation of a drug when its principal actions and relative safety are better recognized. Sometimes it is difficult or even impossible to study the pharmacologic effect on normal persons just as it is in the case with normal animals. Contrary

to the opinion which I have sometimes heard expressed, it is possible but not always entirely satisfactory to assess the metabolic effects of thyroid preparations in euthyroid persons. However, one cannot assess the anti-arrhythmic properties of a drug over safe dose ranges in an individual with normal cardiac conduction. As already hinted previously, this area becomes ever more complex in the evaluation of chemotherapeutic agents such as antibiotics. Dr. Lepper of the University of Illinois has written a critical and lucid article on this subject. As experienced an investigator as Beecher has rejected the trials of analgesic drugs by experimental pain methods in normal persons and insists on the assessment of this property in clinical pain. However, he also emphasized that the study of the side action of such drugs, is much better conducted in healthy people. The subjective interpretation of the patients cannot be dispensed with in many trials such as for analgesia, tranquilizing action, etc. Here, the skill of the investigators, the control of the milieu, the statistical design, etc., become decisive factors in permitting the conduct of a useful and meaningful study. Again only a few illustrations can be given. Milder side effects and particularly the action of tranquilizing drugs are usually better assessed in ambulatory patients than in hospitalized ones. The difficulty with the placebo reactor or the easily suggestible individual, or for that matter the doctor, are handled successfully to a large degree by the double-blind trials.

However, let no one believe that a double-blind trial will make up for other deficiencies in experimental drug design and is, in fact, not always applicable or necessary for a proper investigation of a drug. As experience accumulates in human pharmacologic and clinical pharmacologic trials, the drug passes on from these into the state of broader clinical investigation. It is not the subject of this discussion to go into detail through these phases; however, it is important to realize that many un-

expected effects and side actions which did not show up during the limited trials previously appear often only in the broad clinical investigation. This area becomes more and more the domain of the clinical specialist who is skilled in therapeutic investigation in his specialty. However, errors of judgment either in the positive or negative sense must also be avoided. I had once the occasion to review a clinical study conducted with the double-blind technique in which the investigator reported no significant difference in therapeutic action between placebo and the new therapeutic agent. However, an analysis of his data showed that the patients treated with the placebo improved already at a rate of nearly ninety per cent over the period of observation. Obviously even if the drug would have made one hundred per cent score, the difference could not possibly be significant. The error then did not lie in the statistical design of the experiment but in a wrong selection of patients and/or criteria.

It would be presumptuous to claim that with due care in experimental investigation and use of good judgment, clinical Pharmacology and investigation of new drugs can now be made absolutely "fool proof" and safe.

It is a moot question if this ever can be accomplished but it is clear, I believe, that we have to solve today's problems within today's means the best we know how. Our task is to improve our methodology, to provide the proper facilities and competent, well-trained personnel for such studies. This we hope will protect the patient and at the same time permit progress in therapy with fewer errors and fewer risks, than previously, as our knowledge and experience increases.

There may be honest differences of opinion in certain aspects of the approaches, but with frank discussion and mutual cooperation for the common good, we should be able to advance steadily closer towards a solution for these complex problems.

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If you have not already completed your Illinois Medical Journal Readership Survey, will you please do so and return it to the Journal as soon as possible. The deadline has been set at December 1.

More than 3,000 surveys have been returned to date. However, if you have mislaid your survey (mailed to you about August 15) or if you never received it, please phone or write the Journal offices so that a copy may be sent to you by return mail.

If you know of any ISMS member who has not received a survey please send us his name so that we may include his opinions as well. We want to get the Readership Survey to the statistical organization for computing as soon as possible so that we can begin evaluating the data for a report before the first of the year.

Help us give you the best Journal possible.

**Jacob E. Reisch, M.D., Chairman
Journal Committee**

Institutionally Acquired Infections

GROVER L. SEITZINGER, M.D., Danville

Dr. Seitzinger recently served as the Illinois State Medical Society's delegate to the National Conference on Institutionally Acquired Infections sponsored by the School of Public Health of the University of Minnesota with the cooperation of the Mayo Foundation and the Department of Health, Education and Welfare. The following is a summary of the material presented.

In the past, most concern has been centered around post-operative wound infections due to *Staphylococcus aureus*, but the gram negative organisms such as *Proteus*, *E. coli*, *Pseudomonas*, *A. aerogenes*, *Salmonella*, and the viruses of respiratory infections and childhood diseases are also a hazard. The hospital often serves as the center of infection in the community. The higher incidence of institutionally acquired infections is due to increased exposure from greater hospital usage and the increased susceptibility of the aged patient or the patient weakened by surgery or radiation therapy. The larger number of long surgical procedures is an additional source of prolonged exposure. Urinary tract infections due to the gram negative organisms, most of which are acquired in the hospital following catheterization, cause more morbidity and mortality than infections due to *Staphylococcus aureus* organisms. The incidence of urinary tract infections is directly related to the number of catheterization procedures and these infections often become chronic and are almost impossible to eradicate.

In any study of hospital acquired infections, many factors must be considered. In every hospital, there are individuals who are persistent carriers of hemolytic, mannitol fermenting, coagulase positive *Staphylococcus aurucus*. It is unnecessary to remove such an individual from patient contact unless he is shedding the organisms or several hospital acquired infections can be traced directly to him. Then he should be removed from patient contact and treated.

Treatment with antibiotics has proven unsatisfactory, but autogenous vaccines are effective in most cases.

Another factor to be studied is the patient's environment. Surfaces, particularly horizontal surfaces, are the prime vehicle in cross contamination and serve as a reservoir for many organisms. Any surface contaminated with human soil, such as blood or amniotic fluid, will become a reservoir of offending organisms. Flooding such a surface with a disinfectant and picking up the solution with vacuum is preferable to wet mopping, since unless precautions are taken, a mop becomes a vehicle for spreading bacteria instead of removing them. Frequently what is done to decontaminate surfaces and the way in which the patient is treated outside the operating room are more important with regard to the etiology of post-operative infections than what is done inside the operating room.

Other factors in the patient's environment which must be studied are: the ventilating systems, housekeeping procedures, procedures for handling contaminated laundry and eating utensils, waste disposal, hospital traffic patterns, and sterilization and isolation techniques. The isolation of a patient who is admitted to the hospital with an infection or who acquires an infection after admission presents a special problem. Isolation of patients in individual rooms scattered throughout the hospital is unsatisfactory. The most effective procedure utilizes especially designed isolation wards.

However, these are expensive to build and to operate, and there is a danger that such an isolation ward may become just a pest hole isolating the patient from good nursing and hospital care. Another problem, the control of visitors and relatives of the patient in isolation can be handled most effectively when the patient is housed in a ward especially designed for isolation.

Several methods for studying hospital infections are available to the small 50 bed hospital as well as the large teaching hospital. Air borne bacteria, surface contamination, sterile solutions, and techniques for sterilizing equipment and supplies can be and should be studied in all hospitals regardless of size by methods presently available in the bacteriology department of the laboratory. Air sampling can be done with settling plates and surface contamination can be detected by the use of contact plates. Organisms which are isolated can be identified by means of cultural characteristics and further classified by antibiotic sensitivity. In the larger hospital, more expensive air samplers can be used in various locations and the isolated organisms can be exactly identified by typing with bacteriophage.

Control of institutionally acquired infections is not easy, although several avenues of approach are open. The first step in any control program is the appointment of an epidemiologist. This need not be a full time job and the individual need not be especially trained in epidemiology, but he must be interested in, and concerned about hospital infections. He must have sufficient time to study the problems of infections and to follow up all cases of infections. Hospital infections are only a part of the problem. The second step in control is increased surveillance of institutionally acquired infections and the coordination of these studies with studies of infections within the commu-

nity. A survey of patients discharged from the hospital must be made to determine the extent of infections occurring after discharge as well as within the hospital.

The most important control measure is education. This educational program must include all hospital personnel from the individual who has little patient contact, such as the maintenance man and the laundry worker, to the individual who has frequent contact, such as the doctor and the nurse. It must include also the patient, his relatives, and the community as a whole. When everyone concerned with institutional infections is acquainted with the problem, control is possible. Other control measures include proper hospital design and patient isolation. Many hospitals have been designed without adequate thought to the spread of infections and even less thought to patient isolation. For example, in some hospitals, the laundry chute and dirty linen room are located adjacent to the central supply department. In those hospitals in which the laundry chute does not have negative pressure, the chute only serves as a means of disseminating organisms throughout the hospital.

The responsibility for control of institutionally acquired infections rests with each community and particularly with each institution within that community. Help is available from federal and state agencies, particularly during epidemics. However, this is primarily a local responsibility and each institution must assume its proper role for control of these infections.

In total, this Conference was disappointing to me in two respects: First, it was not of the caliber I had anticipated for a national meeting; much of the material presented is already in print and little new material was added. Second, few clinicians who deal with this problem daily were present.

Drug Manual Prepared For Treating Public Aid Patients

Through a re-evaluation of current methods for prescribing and dispensing drugs, a Drug Formulary is being designed to curtail rising medication expenditures for public aid recipients. It will be mailed to Illinois physicians shortly by the Illinois Department of Public Aid. Prepared by the Illinois State Medical Society, the manual will be accompanied by the Department's instructions as to its application and use.

The Sub-Committee on Drug Formulary was appointed by the ISMS' Board of Trustees in December, 1962 with instructions to prepare a manual for use by Society members when prescribing and dispensing medication for public aid recipients.

After reviewing the literature and regulations pertaining to formularies prepared by other states, a preliminary manual was submitted to the Medical Advisory Committee to the Department of Public Aid early in January of this year and was accepted. Shortly after, it was accepted by the Society's Board of Trustees.

Following continuous refinement, the Drug Formulary Sub-Committee submitted the manual to the ISMS' House of Delegates. After open hearings before the reference committee it was referred favorably to the House and adopted. The House urged Society members to co-operate in its use and prescribe only those drugs and medications listed in the manual for public aid recipients.

The manual includes more than 300 items and is thought to list all drugs required in the everyday practice of medicine. However, it will not be considered final. This Sub-Committee will continue to work with the Department of Public Aid in an effort to keep the manual effective and current. Experience will make necessary both additions and deletions. Reports of statistical data of drugs prescribed by physicians caring for public aid recipients will be made periodically by the Illinois Department of Public Aid and will be made available to this committee for its analysis and recommendations.

The Sub-Committee will also review questions concerning the Formulary referred to it by the State Medical Advisory Committee.

We urge you to cooperate in the use of this manual by prescribing only those drugs listed therein for patient-recipients of public aid.

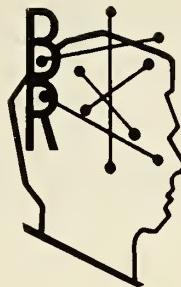
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Brain Research Foundation, Inc.

39 SOUTH LA SALLE STREET
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The Brain Research Foundation is a *voluntary* health agency created by its founders to mobilize the good will and the financial support of private citizens in order to promote brain research. The founders and their professional colleagues throughout the United States and in many countries abroad had been emphasizing the urgent need for a greatly expanded effort to prevent and cure brain disorders.

Need for a Voluntary Brain Research Agency

They recognized that much good work was being done in various research institutions, medical schools and clinics but they felt that far too much of it was being done under trying circumstances and with too little cooperation and coordination among the various scientific disciplines and medical fields capable of contributing to the advancement of the work.

These scientists were well aware of the increasing appropriations being made by the Congress for research activities. They knew that whatever modest resources might be mobilized on a voluntary basis would be pitifully meager in contrast with these vast public funds, but they felt nonetheless that a voluntary organization could be of crucial importance and that its essential freedom might well encourage programs and projects that might otherwise not be undertaken.

Modest But Gratifying Voluntary Success

They outlined brave and broad goals. During the short decade of the Foundation's existence it has had some gratifying success. It is hoped that this success, as modest as it is, can well justify and encourage further support.

The Foundation has thus far been able to mobilize something over one million dollars from all sources for its purposes. Of this amount, over \$200,000.00 has been expended in the support of direct brain research; an additional \$200,000.00 has been expended in land and building purchase and in related costs associated with the effort to create a brain research institute. An additional \$250,000.00 is "earmarked" in the investment fund aimed to build up the resources needed for the creation of the brain research institute. Thus, the Foundation has been able to come into existence as a vital voluntary force, to mobilize support of over one million dollars, to support direct research to the extent of some \$200,000.00, to create a building and an investment fund in excess of four hundred thousand dollars—all in less than ten years.

Scientific and Public Education Advanced

In addition, the Foundation has been able to hold four major scientific conferences and its scientist members have held and partici-

This service page is prepared and sponsored by the Brain Research Foundation, Mr. William E. Fay, Jr., President and Dr. Woodruff L. Crawford, Vice-President and Chairman, The Scientific Council.

pated in a substantial number of symposia, conferences, panel discussions, and scientific meetings, including those of the American Medical Association.

It has been able to organize and carry out a fairly broad public educational program and to render some valuable community services through consultation by some of its member and associate scientists, with physicians and others in the community concerned with the care of persons with brain related illnesses.

Appreciation to Founders, Physicians and Scientists

The Foundation's trustees are deeply grateful to its incorporating founders, Dr. Frederic A. Gibbs, Dr. Ladislas J. Meduna, and to Dr. Carl C. Pfeiffer. It is also grateful for all that the following physicians and scientist members of its Council have done to advance its program: Dr. Woodruff L. Crawford, Rockford, Illinois, Chairman; Dr. Leo G. Abood, Oak

Park, Vice Chairman; Dr. Walter Alvarez, Chicago; Dr. Howard Fabing, Cincinnati; Dr. Morris Fishbein, Chicago; Dr. John R. Green, Phoenix; Dr. Ward C. Halstead, Chicago; Dr. Abram Hoffer, Saskatchewan; Dr. Joseph Hughes, Philadelphia; Dr. Frans Joseph Kallmann, New York; Dr. Donald B. Lindsley, Los Angeles; Dr. H. Houston Merritt, New York; Dr. Meyer A. Perlstein, Chicago, and Dr. Alphonse R. Vonderahe, Cincinnati.

The trustees also acknowledge with gratitude the generous contribution of scientific knowledge made by a considerable number of other physicians and scientists who have participated in a variety of ways in the Foundation's scientific program.

The modest, yet worthy record of the past ten years gives promise for the advancement of the work in the years ahead.

The BRF expresses its appreciation to the Illinois Medical Society for the opportunity to tell its encouraging story of voluntary effort in a most important field of human endeavor.

Brain Research Foundation Theatre Benefit

*"How to Succeed in Business
Without Really Trying"*

Shubert Theatre—Chicago

Tuesday evening, December 17, 1963

Tickets available at the Foundation office

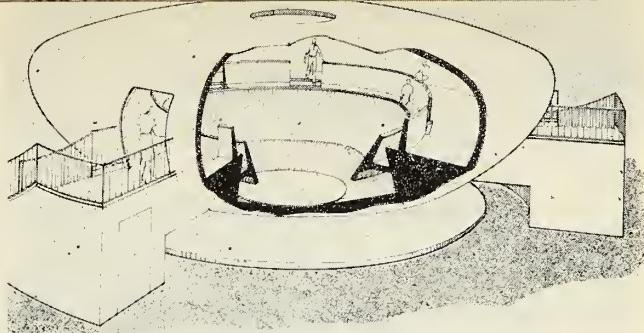
Physicians particularly welcome

Museum Exhibit Explains Complexity

CHEMICAL MAN

A unique exhibit designed to explain to man his chemical complexity has recently opened at the Museum of Science and Industry in Chicago. "Chemical Man" portrays the spectrum of molecular activity that creates and sustains human life. It was presented to the Museum by Abbott Laboratories on the occasion of its 75th Anniversary.

Almost three years in the construction, the egg-shaped plastic shell 42 feet in diameter, emphasizes the precision and order of the life molecules. The story is told through three di-



A unique new scientific exhibit, Abbott Chemical Man, dedicated at the Museum of Science and Industry in Chicago, this view shows the giant fireproof fiberglass shell, 42 feet in diameter and 17 feet high, which houses a theatre-in-the-round. Viewers mount the stairway shown here and leave by a second stairway. There is seating or standing room for about 70 persons. The audience looks down into a cone-shaped well where animated motion pictures, microphotography, and three-dimensional models depict the chemical nature of man.

mensional models, microphotography and especially created animated motion pictures in full color.

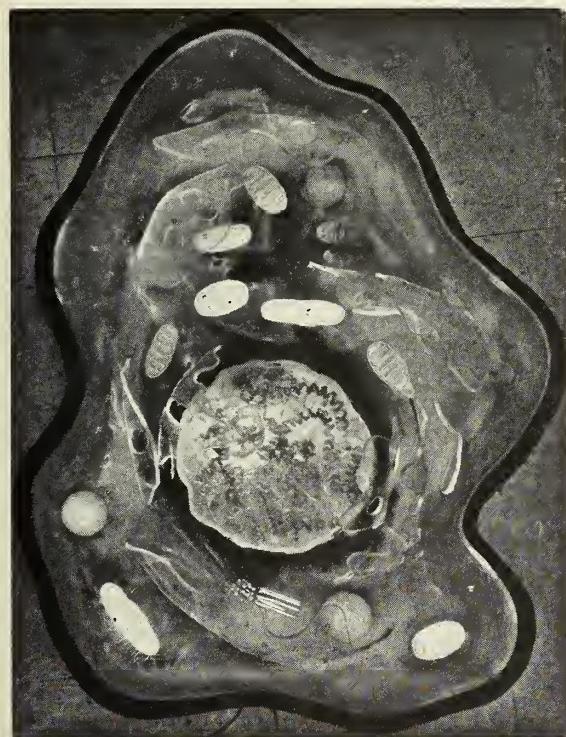
Visitors to the exhibit mount a stairway into the shell which has a seating and standing capacity for about 70 persons. The story unfolds in the cone-shaped well, with spectacularly-colored molecular models appearing in the viewing area alternately with film sequences. The film and models blend into a continuous narration of about 15 minutes.

The "Chemical Man" story starts with man as a recognizable being, then proceeds step by step down to cellular and subcellular levels. Sequences depict atoms combining to form molecules, and graphically interpret in color film the action of enzymes, protein molecules, chromosomes and DNA.

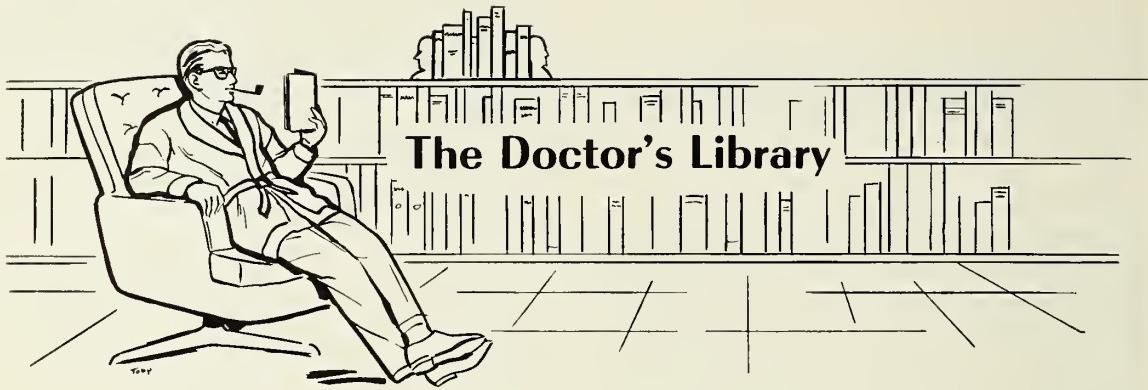
A duplicate of the exhibit is being constructed as a feature of the New York World's Fair Hall of Science.

The aim of the exhibit is to stimulate talented younger people towards an interest in scientific careers, according to Abbott spokesmen.

The scientific advisory group for the project was headed by Dr. Floyd C. McIntire, Abbott Laboratories, and included: Dr. Stanley M. Crain, Asst. Professor of Anatomy, Columbia University; Dr. Frederick A. Gibbs, University of Illinois; Dr. Irving M. Klotz, Professor of Biochemistry, Northwestern University; Dr. Emanuel Margoliash, Abbott Laboratories; Dr. William J. Rutter, University of Illinois; Dr. Paul Saltman, University of Southern California; Dr. Richard U. Schock, Abbott Laboratories; Dr. Albert E. Vatter, University of Colorado.



The unit of life—the cell that performs the processes of a living organism—is seen magnified many thousands of times in this three-dimensional model that is part of the Chemical Man exhibit. The large spherical body in the center is the nucleus in which can be seen the chromosomes. Other structures shown include the endoplasmic reticulum; mitochondria; and lysosomes.



UROLOGY. Edited by Meredith F. Campbell. \$90. Ed. 2. Pp. 2886 (3 Volumes). Philadelphia, W. B. Saunders Company, 1963.

The three volume *Urology* edited by Meredith Campbell has undergone extensive revision in its second edition. The present edition consists of 2886 pages and 1492 illustrations as compared to 2351 pages and 1148 illustrations in the first. A total of 65 authors of well recognized ability contributed 63 chapters to the new edition. The major sections of the work deal with anatomy and physiology, urologic examination and diagnosis, the pathophysiology of urinary obstruction, infections of the urinary and male genital tract, infertility in the male, injuries of the urogenital tract, tumors of the urogenital tract, neuromuscular disease of the urinary tract, anomalies of the urogenital tract, pediatric urology, urology in the female, urologic endocrinology, the psychosomatic approach in urology, urologic surgery, and the adrenals. Each chapter has an excellent list of references which include recent major contributions. In general the quality of the reproductions has been maintained and their replacement in relation to the text improved. A complete index to all volumes is included at the end of each volume.

Perusal of the revised edition and comparison to the previous one disclosed many important changes. An excellent chapter on intersexuality has been added as has a discussion of the psychosomatic aspects of urinary tract complaints. The section on medical diseases of the kidney has been deleted. In areas in which considerable additional knowledge has accumulated since the publication of the first edition, extensive revision of the text has been undertaken by the initial or new authors. As the chapters on the physiology of the renal pelvis and ureter, renal failure, tuberculosis, neoplasms of the prostate and bladder, radiation therapy, and surgery of the kidney, ureter, bladder, and penis were reviewed it became apparent that the major changes made were too numerous to list. In every instance important concepts which had developed recently were discussed.

The chapter on radiation therapy includes highly technical information which would seem to be of value to the therapist. The only significant area of recent interest in urology receiving less emphasis than it seems to warrant is that of renovascular disease.

This publication is the major reference and source book in American urology at the present time. I used the first edition extensively and welcome the appearance of the revision. The overall quality of the contributions is very good. Certain minor aspects of the book did not impress me favorably. Occasionally techniques or concepts are included for completeness without any indication of their value. In some areas illustrations are included that add little to the text. In other instances, such as the sections dealing with external lesions, the value of the text would be increased by permitting the authors to illustrate each abnormality. In general, however, this second edition of *Urology* edited by Dr. Campbell is an improved and needed excellent contribution to medicine and urology. It should be a part of the personal library of all those with a special interest in patients with disease of the genitourinary tract and should be available for general use in hospital and medical school libraries.

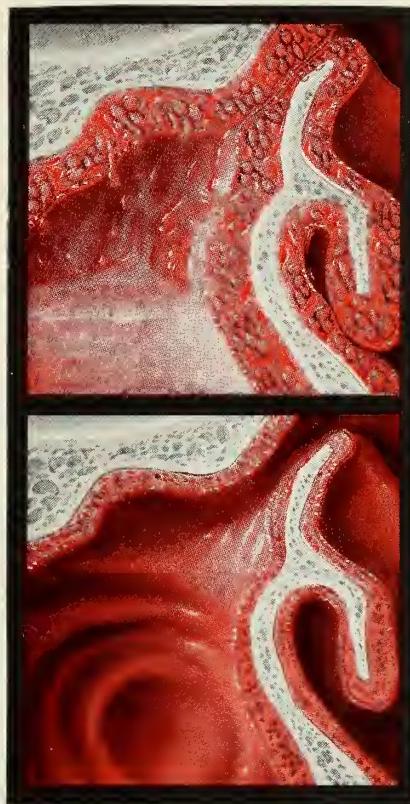
John T. Grayhack, M.D.

THE MANAGEMENT OF THE ANXIOUS PATIENT. Ainslie Meares, M.D. \$9.00. Pp. 493. Philadelphia, W. B. Saunders Company, 1963.

Here is another in a group of many books published in the past decade dedicated to the study, understanding and management of the anxious patient. The author leads off with the concept that the study of anxiety is in itself the logical introduction to the whole of psychiatry and can only "lead to touch on other aspects of nervous illness". That anxiety is the main spring of all psychosomatic disorders, and may be even the motivating force in all nervous and mental illness makes management of the patient so very much more important than is generally realized.

(cont. p. 458)

In colds
and
sinusitis
unsurpassed
in providing
drainage
space
without
chemical
harm



The clogged sinus
In sinusitis, the mucous membrane becomes hyperemic and edematous, lymph glands and goblet cells hyperactive. Ostium is closed by edema and secretions cannot drain freely.

The normal sinus
Magnified anatomy of a portion of maxillary sinus showing mucous membrane with cilia and lymph glands. Ostium is normal and patent.

NEO-SYNEPHRINE®

brand of phenylephrine hydrochloride

hydrochloride

NASAL SPRAYS AND SOLUTIONS

When there is nasal turgescence, tiny orifices of sinus ostia tend to clog. Neo-Synephrine nasal solutions and sprays reduce edematous tissues on contact to provide prompt relief. As turbinates shrink, obstructed sinus ostia open, drainage and breathing become freer and the boggy feeling of a cold disappears.

Delicate respiratory tissue and its natural defenses are not harmed by exceptionally bland Neo-Synephrine; systemic effects are nil; it does not sting. For years it has been recommended for prevention and treatment of sinusitis.¹⁻³ Repeated applications do not lessen effectiveness.

Available in plastic nasal sprays for adults (½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

1. Grant, L. E.: Coryza and nasal sinus infections, *Clin. Med. & Surg.* 42:121, March, 1935.
2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): *Current Therapy* 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110.
3. Simonti, K. M.: Current treatment of sinusitis, *Journal-Lancet* 79:535, Dec., 1959.

WINTHROP LABORATORIES, NEW YORK, N.Y.

Winthrop

The basic theme of anxiety is discussed initially followed by a description of anxiety and its causes. Now the patient can be confronted by the therapist. The author's technique in the interview is described concisely and painstakingly. "Simple techniques" are discussed as are "special techniques". Dr. Meares, in a comprehensive group of interlocking chapters, discusses the various types of anxiety, various common syndromes with overt anxiety and finally compiles in a few chapters descriptions of common psychosomatic syndromes. An epilogue and a glossary comprise the balance of the work.

This book is written by an expert in his particular field and reflects the clinical experience that Dr. Meares has gained in his long practice in the discipline. Many will take issue with the author's selection and employment of certain drugs, his use of "hypnoidalization", the choice of electroconvulsive therapy and even psychosurgery for the relief of anxiety in certain selected instances. There are not too many adherents in the United States to some or even most of these tenets. However, the book is welcomed as a brave and significant contribution in the management of anxiety.

Louis D. Boshes, M.D.

The View Box

— diagnosis and discussion

(continued from page 440)

Answer: Osteogenic sarcoma with cavitating pulmonary metastases.

Figure 1 reveals the typical lesion of a sclerosing osteogenic sarcoma of the distal tibia, with marked dense bone formation and extension of the abnormal bone through the cortex of the bone into soft tissue. There is elevation of the periosteum proximally by the bone tumor. The patient had an amputation at that time.

Figure 2 reveals two separate metastatic nodules, one adjacent to the left hilus; the second is rather large and in the third left anterior intercostal space. He received radiation therapy to the left lung.

The sudden pain in 4/13/60 resulted from a spontaneous pneumothorax when the metastatic nodule cavitated and perforated the pleura. On re-expansion of the lung only a radiolucent zone with a central core remains of the metastatic nodule. A new metastatic nodule is seen in the right mid-lung field.

Figure 4. Cavitating metastases are infrequent, but are common from head and neck tumors and radiated osteogenic sarcoma and Wilm's tumors. One of the commonly accepted theories is that the lesion undergoes necrosis due to inadequate blood supply.¹

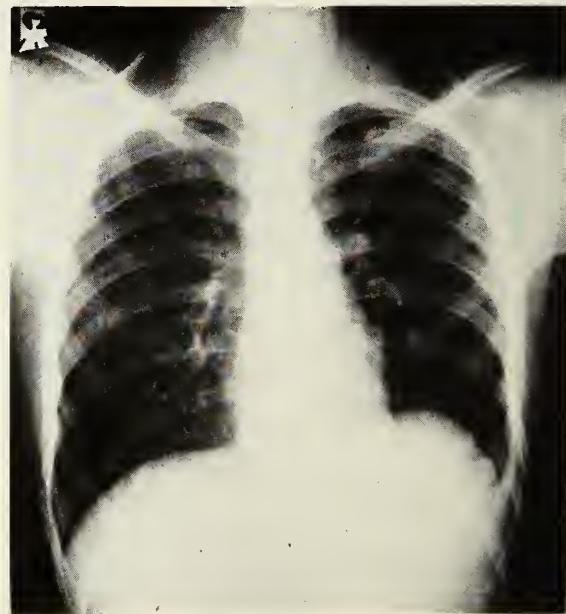


Figure 4

REFERENCE

1. Dodd, Gerald D., and Boyle, James J.: Excavating Pulmonary metastases, American Journal of Roentgenology, Radium Therapy and Nuclear Medicine, 85:277-293, February 1961.

PULSE

of the Illinois State Medical Society

and *Illinois Auxiliary News*
Illinois Medical Journal



November, 1963 A Service of the Public Relations Division

Counties Go "All Out" For Community Health Week

Community "togetherness" was in abundant evidence throughout Illinois last month as county medical societies responded with action and enthusiasm to AMA's first nationally declared Community Health Week, Oct. 20-26.

- *Winnebago County* opened the week with a front page story on Medical Identification cards and bracelets, featuring a picture of the card and offering it free to anyone requesting it.
- *Vermilion County* offered the vaccine free, but encouraged 25 cent donations to be given to further health care in the area. The contributions, totaling over \$1,000, were divided between the two schools of nursing in the county.
- *Lake County* began immunization of over 150,000 of their citizens against polio.



MEDICINE RELIGION PANEL hear an outline of the "ground rules" before discussion program held in Belleville, Ill., during Community Health Week. Left to right are: Rev. Arthur Smith; Arne Larson, assistant director of the department of medicine and religion for AMA; Dr. Morris Rothenberg; Rabbi Lawrence Sigel; Msgr. Clement Schindler; Dr. Julian Buser and Dr. J. J. McCullough. The meeting was sponsored by St. Clair County.

• *Du Page County* placed ads in 15 local newspapers, sponsored in cooperation with other local health care agencies.

• *St. Clair County*, scene of last year's pilot Community Health Week program, this year featured seminars, meetings and debates. Scout groups were offered facts on smoking, while mental health and heart disease were topics that drew excellent attendance among adults.

Over 20,000 church bulletins, offered by AMA and reprinted free of charge for Illinois county medical societies by ISMS, were distributed in St. Clair county alone.

Most societies enlisted the support of other health and public service organizations in their com-

munities. Many opened the week with service recognition dinners and luncheons honoring active participants and outlining plans for the week.

Citizens committees were formed and many served as "doctors' helpers" during polio and tetanus immunization drives. Many communities offered immunization at cost. One group offered physical examinations to all school children and a follow-up card was sent to the parents informing them of the child's condition, advising further care if indicated.

Observances for the week were many and varied, but as reports rolled in the goal seemed achieved. Public interest and support in its own health facilities were at a record high throughout the state.



LIFE-SAVING STOP SIGN—Symbol for Medic-Alert, when worn on person as jewelry, belt buckle, etc., means "look for more information before giving medical treatment." During Community Health Week Winnebago County Medical Society offered wallet-sized medical information cards free of charge.

Fall Board Meeting Filled With "News and Plans"

DELIGHTFUL LUNCHEON for Board Members at Pheasant Run Lodge meeting, below, was followed by speakers' conference in right photo between Dr. E. A. Piszczeck, left, ISMS President Elect; Mrs. M. E. Uznanski, Auxiliary President; Mrs. Alfred Pagano, social chairman; and Robert L. Richards, ISMS Executive Administrator.



The annual fall Board Meeting of the Woman's Auxiliary to the Illinois State Medical Society held Oct. 14 at Pheasant Run Lodge, St. Charles, Ill., was packed with news and plans supplied by 42 Board members who came from areas throughout the state to give activity reports on their respective chairmanships.

The morning business session was followed by luncheon, after which Dr. Edward A. Piszczeck, President Elect of the Illinois State Medical Society and Chairman of the Advisory Committee to the Woman's Auxiliary, brought greetings and commendations from the Illinois State Medical Society. Mr. Robert L. Richards, Executive Director of the state society, spoke on the increasingly important role of the Auxiliary in ISMS activities. He was especially grateful for the help being given by the Auxiliary in the current Medical Self-Help TV program series. Chairman of the Civil Defense committee is Mrs. John Malcolm Tindal.

Speaking for the Board, Mrs. Matthew Uznanski, ISMS Auxiliary President, said that it is indebted to Dr. Piszczeck and Mr. Richards for honoring the meeting as guest speakers—and for providing further incentive and inspiration.

PROGRAMMING

Quotes from Mrs. John W. Koenig's state newsletter to county program chairmen:

"It is through Auxiliary programs that we prepare ourselves to speak for medicine with courage and conviction. Learning can be fun, and we know that the interested member is the informed member. Provocative programs will attract members and encourage attendance.

"Be sure to see that time is planned for very important reports:

1. To keep abreast of important developments in *legislation*.
 2. To see that the importance of support to *AMA-ERF* is thoroughly understood.
 3. To give attention to wider circulation of our *Bulletin*.
 4. To give background information for new members.
- "We suggest programs on:
1. The American Medical Association—its history, policies, and accomplishments.
 2. The National Auxiliary—its history, policies, and accomplishments.
 3. Medical care costs, which are the source of much controversy.
 4. Medicine and Religion—so that members know the philosophy and aims of this new department of the AMA."

BOARD SPRING MEETING

Time: March 16, 1964

Place: Water Tower Inn,
Chicago, Illinois

See You There!

District Meetings, 1963-64

ALREADY HELD

1. October 29 — Zion
2. October 17 — La Salle
4. October 1 — Moline
6. October 16 — Alton
7. October 22 — Effingham
8. October 10 — Champaign
11. September 24 — Frankfort

COMING

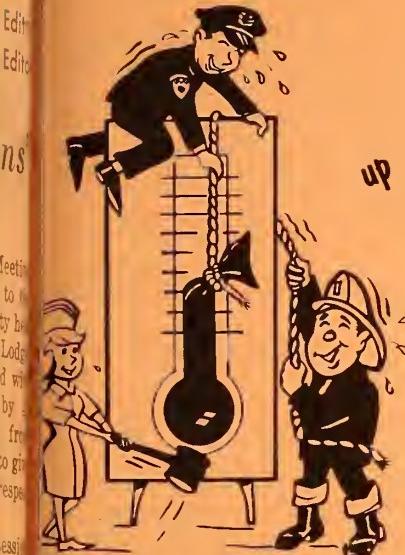
3. January 14, 1964 — Chicago
5. November 18 — Springfield 9 & 10.
- November 7 — Marion

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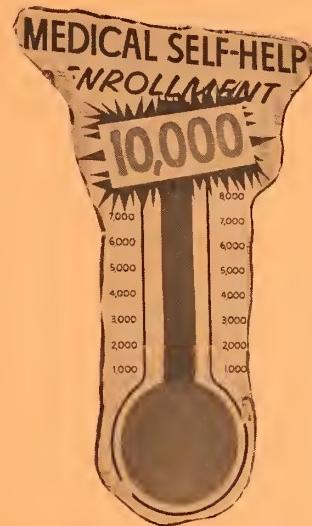
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JRSSES AND PATIENTS at Veteran's Administration Hospital in Downey, Illinois gather around television set every Thursday evening to watch MSHT show. The entire nursing staff of 200 enrolled in the course. Not content with that, they enrolled any patients.

Enrollment in ISMS Medical-Self Help TV Series Hits 10,000 Goal—With Assists From Police, Firemen, Nurses and Telephone Company



IRE AND POLICE DEPARTMENT OFFICIALS watch Dr. Max Klinghoffer, center, check ISHT training film. From left are Capt. Sandino Guarascio, Training Division, Chicago Fire Department; Dr. Harold P. Sullivan, Chief Surgeon, Chicago Fire Department; Robert McCann, Director of Training, Chicago Police Department; and Sgt. Earl Williamson, First Aid Supervisor, Chicago Police Department. Both Departments sent bulletins to all police and fire stations in Chicago urging men and their wives to enroll in MSHT. Result: more than 2,000 enrollments.



EXPLODING "GOAL-O-METER" in ISMS office is happy symbol of victory.



"TELE-COMMUNICATOR" told Illinois Bell Telephone employees how to enroll in MSHT via recorded message heard by dialing telephone number employees know and use for daily bulletin information.



PRACTICING WHAT MSHT TEACHES, Sgt. Williamson, on floor, and Capt. Guarascio brush up on artificial respiration technique under watchful eyes of Director McCann, Dr. Sullivan and Dr. Klinghoffer.

COUNTY CAPSULES

DUPAGE PHYSICIAN HONORED: Dr. Max Klinghoffer, Elmhurst, was honored by the U. S. Public Health Service Nov. 2 for his outstanding contributions to Medical Self-Help. Chairman of the DuPage County and ISMS Disaster Medical Care Committees, Dr. Klinghoffer narrates the "Medical Self-Help" television series currently being shown on station WTTW in Chicago.

AUXILIARY DISTRICT MEETING: Over 90 physicians' wives from five Illinois counties attended the ISMS Auxiliary First District Fall Workshop Conference in Zion, Illinois Oct. 29. Members of the Lake County Auxiliary were hostesses for the Conference, theme of which was "Community Service—What Can We Do?" (*Complete story in December Pulse.*)

VOLUNTEER SHELTER TEAMS: Springfield and Sangamon County Civil Defense officials currently are seeking 900 to 1,000 volunteers to form shelter teams and provide leadership in event of an emergency. Recruitment of trained medical personnel for assignment to the shelters is being carried out by Dr. Jack Baldwin of the Sangamon County Medical Society.

HEALTH STUDY SET: Sangamon County was named as one of 20 areas in the country selected for self-studies of local health services. Goal of the project is to develop a program for meeting future health needs. Study groups will check water and sewer facilities, housing conditions, schools and public areas, control of communicable diseases, food and milk inspections, nuisance control and personal health factors.

NOTEWORTHY ACTIVITIES IN YOUR COUNTY? Let the *Pulse* know by writing *Pulse Editor*, 360 N. Michigan, Chicago 1, Illinois or calling *STATE* 2-1654.

Smokeless Wonders



CIGARETTE SALES SINK in Pinckneyville, Ill. as every doctor in town (save one, not photographed, who never indulged) kicks the smoking habit. Protesting protagonists pictured above are, left to right, Dr. James Stotlar; Dr. C. E. Cawvey; Dr. J. A. Mathis; Dr. George D. Mohr and Dr. Gene Stotlar.

The words "We Quit", are spelled out on the table with cigarettes, "none of which came from the pockets of the doctors—I checked!" reports suspicious John Sheley, editor of the Pinckneyville Democrat, their friend and photographer.

Symposium On Oral Cancer Slated Dec. 4

A Symposium on Oral Cancer, sponsored by the American Cancer Society, Illinois Division, Inc., in cooperation with the Chicago Dental Society and the Illinois Dental Society, will be held Wednesday, Dec. 4, 1963, in the main lobby auditorium of the Prudential Building, Randolph St. east of Michigan Ave. in Chicago.

Important topics to both physicians and dentists covered at the day-long symposium include: "Physical Examination of the Mouth For Cancer"; "Cytologic Techniques"; "Radiologic Diagnosis"; "Radio therapy"; and "Surgical Treatment." Of the 12 participants, seven are physicians.

Registration begins at 8:30 a.m. with the program getting under way at 9:15 a.m. Pre-registrants write the American Cancer Society, Illinois Division, Inc., at 37 S. Wabash, Chicago 3, Ill., or phone the Society at 372-0471. Your check for \$2 payable to the American Cancer Society, Illinois Division, Inc., should be enclosed. Symposium registration is limited to 1,000 and registrants will be honored in the order that their requests are received.



ISMS COMMENDATION honoring Spastic Research Foundation and members of the Illinois-Eastern Iowa District of Kiwanis International for humane efforts in behalf of spastic children is presented to George L. Scheringhausen, Jr., center District Governor by Dr. E. Newton DuPuy, left, Chairman of the ISMS Board of Trustees, and Robert L. Richards, Executive Administrator of ISMS. Presentation was made at the Kiwanis District Meeting in Peoria Oct. 1.



Changes In Blue Cross Individual Plans Announced

The Chicago Blue Cross Plan for Hospital Care of Hospital Service Corporation will soon offer a new "Conversion-75" and "Non-Group-75" Plan, designed to prevent a substantial increase in membership dues for direct-pay and non-group Blue Cross members—according to R. T. Evans, President.

"These are members who do not belong to groups . . . but who pay their dues directly," Evans explained, "and their present certificates will be replaced by the new Plan. More than 80 per cent of all Blue Cross members belong through groups, and are *not* affected by this new Plan. They will continue to have their same group benefits."

Evans declared that "Blue Cross has reduced all the expense of running the Plan to an all-time low of 3½¢ of the income dollar, and the remainder can be used only to pay hospital bills. The continuation of the present certificates for direct-pay and non-group members would have required a very substantial increase in present dues to meet increasing hospital costs and usage."

"The new 'Conversion-75' Plan provides for the continuation of present rates for direct-pay members and a minimal adjusting increase for non-group members of 16¢ a month for family and 60¢ a month for individual membership."

"The members who utilize hospital services will pay the first \$25 at the time of in-patient hospital bed care per 120-day benefit period. Payment of the remainder of the hospital bill by Blue Cross—for benefits with the same limitations and exclusions as at present—will be on the basis of 75 per cent by Blue Cross and 25 per cent by the member . . . which does not apply to outpatient and emergency room care. This is in lieu of the \$2.50 per day cooperative payment to hospitals in the Chicago area and \$1.50 per day to hospitals elsewhere."

"Under these new Plans," Evans said, "members who use hospital services share in more of the cost and thereby make it possible for all direct-pay and non-group members to continue at the lowest possible rates."

Evans pointed out that the present broad range of benefits of the Blue Cross Plans, shall be continued.

In addition, the new "75" Plans call for an increase in private room benefits, because of the increasing need and availability of private rooms. The new Plans provide a private room allowance equal to the hospital's charge for the most common semi-private room.

M.D.'s in the News

Dr. Harold Swanberg, Quincy, Organizer and Secretary-Treasurer of the Society for Academic Achievement, has been honored by Carthage College at a special Honors Convocation. The College awarded Dr. Swanberg an honorary Doctor of Science degree.

Dr. Frank J. Jirka, Jr., Berwyn, ISMS Trustee, has been named chairman of Governor Kerner's committee on employment of the handicapped. Dr. Jirka, who lost both legs during World War II, has been a member of the committee since 1960.

Appointments

Dr. Bertram B. Moss, president-elect of the Academy of Psychosomatic Medicine, has been appointed medical director of Gross Point Manor, a convalescent and rehabilitation center for the post-operative, aged and chronically ill.

New Staff Positions Announced



Roland King



Joanne Twomey



James Slawny

Robert L. Richards, Executive Administrator, has announced several personnel changes in the ISMS' Chicago office and the addition of a new member to the staff.

New director of the Division of Public Relations and Field Services is James Slawny, former Media Relations Assistant. Assisting him will be William Anderson, former assistant editor of the *Illinois Medical Journal*. Mr. Slawny, who has been with the Society since 1962, is a graduate of Marquette University and has been instrumental in developing the current Medical Self-Help Training Television series.

Newly elevated to the status of director is Roland King, former business manager, now Director, Division of Business Services. A graduate of the University of Michigan, he is a Certified Public Accountant and has been with the Society since 1961.

In the Division of Publications and Scientific Activities, Joanne Twomey, former publication assistant, has been named to replace Mr. Anderson as Assistant Editor of the *Journal*. A graduate of Mundelein College, Miss Twomey has been with the Society since 1962.

Mr. Paul S. Swarts, former assistant Director, Seminar Division of the International Correspondence Schools, has been named to the Division of Legislation and Economics. He is a native of Pennsylvania and a graduate of Stroudsburg State College. He will primarily serve the IMT committee and other committees working in the area of legal activity.

Responsibilities of John Neal as Special Legal Counsel hereafter will be limited to meetings of the House of Delegates and the Board of Trustees. All other legal problems will be referred to General Legal Counsel, the firm of Pfeifer, Fixmer and Gasaway in Springfield.

Century Old Doctor's Office

The Hinsdale Health Museum, 40 S. Clay Street, Hinsdale, Illinois, has brought back the exhibit "A Doctor's Office A Century Ago." The exhibit, which was on display in 1962, will be on display until February 15, 1964.

The exhibit portrays the office of a physician exactly as it was in the mid nineteenth century. "Those who inspect the Doctor's Office," states Mrs. Elizabeth Lundy, Director of the Hinsdale Health Museum, "say they have never seen anything more clearly illustrating the progress of medicine during the past hundred years."

Elections

Dr. John B. McDonoghue, clinical professor of surgery at the Stritch School of Medicine of Loyola University and professor of surgery at Cook County Graduate School of Medicine, has been installed as president of the United States Section of the International College of Surgeons, the largest constituent National Section of the College.

Dr. Ethel M. Davis has been installed as president of the Chicago Society of Allergy.

Dr. Alexander Wolf has been selected president-elect.

H. and Rachel M. Schwab Rehabilitation Hospital and has added a new wing to its hospital facilities.

Hospital News

Skokie Valley Community Hospital admitted its first patients November 4 following special dedication ceremonies. The hospital which initially contains 152 beds can eventually be expanded to 300 beds to keep pace with the expected population growth in the Skokie Valley area.

At the request of Dr. Charles A. Lang, Director of the DuPage County Health Department, Forest Hospital, Des Plaines, has launched an educational program on mental illness for 25 of that county's health nurses.

Fifty-nine hours of study, extending through November, will comprise the teaching schedule with the faculty drawn from the attending and house staffs of the Hospital.

Rest Haven Rehabilitation Hospital, Chicago, has officially changed its name to the Charles

The Governor has approved the release of over 2 million dollars in funds for construction of an intensive treatment building at Tinley Park State Hospital.

Zoonoses Study

A special study project—Project SIZON—the Southern Illinois Zoonotic Observational Network—covering four Illinois counties, Johnson, Pope, Hardin and Massac—has been established to study the diseases common to man and other members of the animal kingdom. A staff of physicians, veterinarians, biologists, zoologists, ecologists, epidemiologists, sociologists, anthropologists, meteorologists, parasitologists and geographers hope to clarify facts about the emergence and recession of diseases. The study is centered at the University of Illinois Center for Zoonoses Research.

ISMS Convention News

Announcing The First Speakers *Section on Pediatrics and Illinois Academy of Pediatrics*



- Saul Krugman, M.D., Professor and Chairman, Department of Pediatrics, New York University School of Medicine
- Dwain Walcher, M.D., Professor of Pediatrics, Indiana University School of Medicine
- Joseph Greengard, M.D., Chief of Pediatrics, Cook County Hospital
- James B. Corbett, M.D., Carle Clinic, Urbana, Illinois

Wednesday, May 20

Sherman House

Chicago

Placement Service Openings

The Journal periodically publishes synopses of towns which have applied to our Placement Service for physicians. Inquiries are encouraged from interested physicians and information from physicians practicing in these areas as to actual physician-need is also requested.

Here are a few of the openings:

Franklin County: Christopher, population 2,900. Estimated population of trade area, 7000. Two physicians with an urgent need for a third. Several small towns in trade area without physicians. 40 bed hospital. Second hospital within 8 miles. 60 miles from Belleville, Illinois. Office space available with 50 new homes to be built in near future. Financial assistance can be arranged. Sources of income: mining, agricultural, and industry.

Jasper County: Newton, population 3,000. County seat. Population of county 13,000. Three practicing physicians, one of whom plans to retire. Nearest hospital at Olney, 19 miles—118 beds. Nearest large city, Terre Haute, Indiana, 65 miles. 2 offices available: 1 in new medical center now housing two physi-

cians; second in office occupied by retiring physician for 20 years. Financial assistance can be arranged. Sources of income: agriculture, light industry and oil.

Jo Daviess County: Elizabeth, population 800. Estimated population of trade area: 2,000. Several small towns in trade area without physician. Only physician joined a Chicago clinic in December, 1962—replacement needed. Nearest hospitals at Galena, 14 miles, and Savanna, 20 miles. Nearest large city—Dubuque, 34 miles, population 50,000. Office available built under supervision of Sears Foundation in 1958: 8 rooms with equipment for sale if desired. Agricultural community.

Knox County: Oneida, population 672. Estimated population of trade area: 1,000. No local physician since 1954. Nearest hospitals at Galesburg: 13 miles. Nearest large city Peoria, 50 miles, and Quint cities, 50 miles. Office space available or community will build according to specifications. Principal sources of income: agriculture and small business.

LaSalle County: Lostant, population 500. Several small towns in trade area without physicians. Nearest physician 5 miles. Nearest hospital 16 miles at Peru.

Recent reports suggest...insulin and sulfonylureas may accelerate lipogenesis, fat accumulation, weight gain; thus appear to aggravate obesity in diabetics⁴⁻⁵ ...serum "insulin" levels are often elevated in obese diabetics^{2,3,6}...DBI (phenformin HCl) reduces high blood sugars, lowers elevated "insulin" levels, tends to reduce body weight toward normal.^{1,3,7-9}

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50 miles from Peoria. Newly decorated office available. Financial assistance may be arranged. Town without a physician for four years. Sources of income: agriculture and industry.

Livingston County: Cullom, population 600. Estimated population of trade area, 1800. Only physician died in 1961 having built a new modern office 4 months previously. Office now available with equipment. Hospital 20 miles. Former physician also maintained a second office in Saunemin available if desired.

Perry County: DuQuoin, population 7,500. 75 miles from St. Louis. According to Dr. James B. Stotlar, Secretary of the Perry County Medical Society, the shortage of physicians is acute. The community had been accustomed to 7 active physicians and there are now 4 due to illness and death. Dr. Stotlar comments that the city has become a growing industrial center in Southern Illinois with the community actively soliciting and financially supporting the procuring of new industry.

Pike County: Hull, population 650. Several small towns in trade area without physicians. Physician needed to replace only physician now leaving for new post. Nearest physician at Hannibal, Missouri, 9 miles. Modern equipment of retiring physician for sale if desired. Financial assistance available if desired. Agricultural area.

Randolph County: Chester: population 5,500. Estimated population of trade area 15,000 with several small towns in surrounding area without physicians. Three physicians currently. County medical society reports need for one or two additional. Hospital built in 1962. 65 miles from St. Louis, Missouri. Financial assistance can be arranged. Principal sources of income: industry.

White County: Crossville, population 1,000. Estimated population of trade area 2,500. Only physician died in 1961. Nearest hospital (57 beds) at Carmi, 7 miles. 30 miles from Evansville, Indiana. Office space and housing facilities will be arranged with financial assistance if desired. Sources of income: agriculture, and oil.

Inquiries and comments should be directed to: Mrs. Robert Swanson, Secretary, Physicians' Placement Service, Illinois State Medical Society, 360 North Michigan, Chicago 1, Illinois.

Mr. Harold Widmer, ISMS Legislative Representative, who is frequently in the field also has a listing of openings in the State. He may be contacted when he is in your area or at the ISMS Springfield office.



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Bibliography: 1. Williams, R. H.: Textbook of Endocrinology, Ed. 3, Saunders, Philadelphia, 1962, p. 610. 2. Gordon, E. S.: Metabolism 11:819, 1962. 3. Grodsky, G. M. et al.: Metabolism 12:278, 1963. 4. Sadow, H. S.: Metabolism 12:333, 1963. 5. West, K. M. and Tophoj, E.: Metabolism 10:689, 1961. 6. Yallow, R. S. and Berson, S. A.: Diabetes 9:254, 1960. 7. Weller, C. et al.: Scientific Exhibit, A.M.A., June 1962. 8. Weller, C. et al.: Metabolism 11:1134, 1962. 9. Radding, R. S. et al.: Metabolism 11:404, 1962.

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Meeting Memos

Radiological Society of North America, Chicago, Nov. 17-22.

Southern Medical Association, New Orleans, Nov. 18-21.

American Academy for Cerebral Palsy, Dallas, Nov. 24-27.

National Conference of the National Society for Crippled Children and Adults, Palmer House, Chicago, Nov. 22-25. Conference sessions and special professional seminars in subjects such as the brain injured child, aging, parent-family counseling, architectural barriers, home services for the crippled, and the handicapped in society today are open to all who are interested.

American Academy of Dermatology, Chicago, Nov. 30-Dec. 5.

American Medical Association (Clinical Meeting), Portland, Dec. 1-4.

American Psychoanalytic Association, New York, Dec. 6-8.

"The First Five Years of Practice" will be the topic of the meeting sponsored by the Alumni Council of the Student AMA, Las Vegas, Dec. 8-11. Both clinical and non-clinical subjects will be discussed.

"The Cellular Basis for the Action of Cardiac Drugs" will be the topic of a two day seminar sponsored by the Heart Association of Southern Pennsylvania, Philadelphia, Feb. 27-28.

American College of Allergists Graduate Instructional

Course and Twentieth Annual Congress, Miami Beach, March 1-6.

American Industrial Health Conference, Pittsburgh, April 13-16.

International Congress on Diseases of the Chest, Mexico City, Oct. 11-15.

Stephenson County Meeting

"Endocrine Therapy in Gynecology" will be discussed by Dr. Charles D. Krause, Assistant Clinical Professor of Obstetrics-Gynecology, University of Illinois College of Medicine, Nov. 21 at the meeting of the Stephenson County Medical Society, Freeport.

Medical Writers Meeting

The Chicago Chapter of the American Medical Writers Association will meet Monday, November 18 at the Drake Hotel. Dr. Morris Fishbein will discuss the "Art of Book Reviewing" while Dr. William Wehrmacher's topic is the "Art of Abstracting." The meeting will begin with dinner at 6 p.m.



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Campus Change

Effective with the spring quarter, 1964, advanced work in the Southern Illinois University program in nursing will be transferred to the SIU Edwardsville campus.

The University board of trustees, authorized shifting the department, organized here in 1955, to the new campus. Miss Virginia Harrison, department chairman, said St. Louis area general and special hospitals will be used in advanced phases of the program, rather than Chicago institutions.

Preparations for the changeover will start this fall. Southern has two programs in nursing, one for registered nurses who wish to attain a bachelor of science degree and one for students who wish to earn both the academic degree and professional licensure (RN).

The change from the present plan is necessary because the University of Illinois program, in which Southern was a partner in the past, has become too large to accommodate SIU students for their academic year in Chicago.

ANNOUNCEMENTS

Fellowships

The Board of Directors of the Hektoen Institute for Medical Research of the Cook County Hospital has announced the establishment of a Research Fellowship in Gastroenterology by the R. S. Levy Family Foundation. This grant of \$50,000 will be used for the Fellowship at the rate of \$10,000 per year for five years. The research fellow to be chosen will work under the direction of Dr. Frederick Steigmann, who heads the Department of Gastroenterology.

Special fellowships for the National Football Foundation's scholar-athletes who indicate their intention of entering medical school have been established by the Medical Economics Foundation. The medical scholarship trust is geared to provide \$2,500 annually which will be divided among any of the eight football scholar-athletes who have elected to attend medical school within one year of graduation.

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Available Literature

"Financial Assistance Available for Graduate Study in Medicine," a revised edition, has just been published by the Association of American Medical Colleges. It includes more than 3,000 Fellowships, Scholarships, Traineeships and Prizes available in 146 major specialties and 179 subspecialties. It is available from the Association, 2530 Ridge Avenue, Evanston, Illinois, for \$4.00 per copy.

New publications of the American Society include: "Trends and Practices in Cancer Diagnosis and Treatment"; "Cancer of the Larynx, A Monograph for the Physician"; Cancer Source Book for Nurses"; "The Diagnosis of Genito-Urinary Neoplasms, A Monograph for the Physician"; "Cancer Chemotherapeutic Agents"; and "Exfoliative Cytology." They are available without cost from the Illinois Division, American Cancer Society, 37 South Wabash Avenue, Chicago 3, Illinois.

Crippled Children's Clinics

December 3	Belleville—St. Elizabeth's Hospital
December 4	Alton (Rheumatic Fever & Cardiac)—Alton Memorial Hospital
December 4	Carmi—Carmi Township Hospital
December 4	Hinsdale—Hinsdale Sanitarium
December 4	Rock Island (Cerebral Palsy)—Foss Home, 3808 Eighth Avenue
December 5	Carlinville—Carlinville Area Hospital
December 5	Springfield (General)—St. John's Hospital
December 6	Chicago Heights (Cardiac)—St. James Hospital
December 10	East St. Louis—St. Mary's Hospital
December 10	Peoria (General)—Children's Hospital
December 11	Champaign-Urbana—McKinley Hospital
December 12	Effingham (General)—St. Anthony Memorial Hospital

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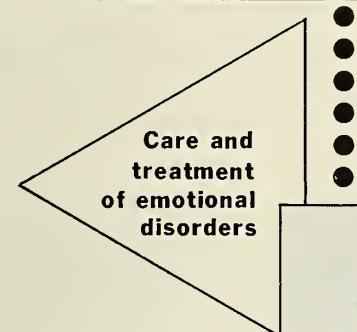
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December 13	Evanston—St. Francis Hospital
December 17	Effingham (Rheumatic Fever & Cardiac)—St. Anthony Memorial Hospital
December 17	Peoria (General)—Children's Hospital
December 18	Aurora—Copley Memorial Hospital
December 18	Chicago Heights (General)—St. James Hospital
December 19	Bloomington (General a.m.)—St. Joseph's Hospital
December 19	Elmhurst (Cardiac)—Memorial Hospital of DuPage County
December 19	Rockford—Rockford Memorial Hospital
December 20	Chicago Heights (Cardiac)—St. James Hospital

Deaths

Howard H. Bass*, Oak Park, died September 30, aged 62. In 1926 he graduated from the University of Illinois College of Medicine and specialized in urology. He was a retired Army Colonel.

Ottlie Z. Baumrucker, one of the first woman doctors in Chicago, was originally from Prague, Czechoslovakia. She graduated from Rush Medical College in 1903. She was on the staff of Mary Thompson hospital and had served as president of the staff, specializing in obstetrics and gynecology since 1914. She died October 3, aged 81.

Bernard V. Chern*, Chicago, died September 17, aged 55. He was a graduate of the University of Illinois College of Medicine in 1934, a general practitioner and a staff member of St. Joseph Hospital.

Samuel A. Fuqua*, California, formerly of Illinois, was a graduate of Rush Medical College in 1917. He died June 3, aged 74.

Theophil P. Grauer*, Chicago, a graduate from Rush Medical College in 1926, was certified in urology in 1939. He had served on the faculty of Northwestern University for over 25 years and at the time of death he was attending urologist at Presbyterian-St. Luke's Hospital and was associate clinical professor at the University of Illinois College of Medicine. He died September 26, aged 66.

Nathaniel Green, Chicago, died September 23, aged 77. He was a graduate of Syracuse Medical College,

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New York, in 1921. He had practiced in Chicago for over 40 years and was a veteran of World War I.

Morris Greenberg*, Jacksonville, was a graduate of the University of Illinois College of Medicine in 1937. He was a medical director of Oaklawn Tuberculosis Sanatorium and a member of the American Thoracic Society and the American College of Chest Physicians. He died September 16, aged 51.

M. Ray Hadden*, died June 25, aged 64. He was a graduate of the Ceneral College of Medicine in 1924.

Franklin R. Huekin*, Chicago, died September 19, aged 78. He was a graduate of Rush Medical College in 1911, a staff member of both Lutheran Deaconess and Lutheran General Hospitals. He was an emeritus member and a member of the 50 Year Club of ISMS.

Thomas Jaekson*, Chicago, died August 31, aged 65. He was a graduate of the University of Illinois College of Medicine in 1927.

F. Arthur Karst*, Park Ridge, died October 2, aged 66. He was a graduate of General Medical College in 1923.

Alfred J. Mitchell*, Chicago, died October 13, aged 71. He was a graduate of the University of Colorado School of Medicine in 1914, specializing in occupational

medicine and general surgery. He was formerly a staff member of American Hospital and the Mandel Clinic at Michael Reese Hospital.

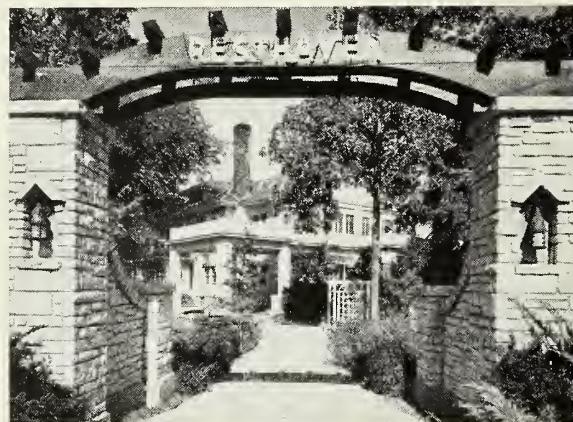
Abe F. Nemiro*, Chicago, died September 27, aged 77. He was a graduate of the University of Louisville School of Medicine, Kentucky, in 1907. He was a staff member of the American Hospital.

Mutsumi Nobe*, Chicago, a graduate of the University of Illinois College of Medicine in 1949, he had practiced in Chicago for 20 years and was on the staff of Alexian Brothers and Cuneo hospitals. He died October 3, aged 56.

Ernest D. Nora*, Chicago, was a graduate of the Chicago Medical School in 1926, specializing in pathology, and had also studied at the university of Ceneva in Switzerland. He was chairman of the board of directors of Columbia hospital where his four sons are practicing physicians. He was also a fellow of the American College of Clinical Pathologists and on the executive committee of the Stritch School of Medicine of Loyola university. He died October 6, aged 68.

Deedreieh L. Oltman*, Rockford, died September 20, aged 57. A radiologist, he had graduated from Northwestern University Medical School in 1936. He was a veteran of World War II.

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William R. Parkes^{*}, California, formerly of Evanston, where he had practiced for 60 years until retirement in 1948. He was founder of Evanston hospital and had been chief of the surgery department for 40 years. He was a graduate of Rush Medical College in 1893. He was an emeritus member and a member of the 50 year club of ISMS. He died October 5, aged 94.

Herbert H. Pillinger, Sr.^{*}, Florida, formerly of Elgin, died September 12, aged 79. He was a graduate of the University of Illinois College of Medicine in 1906. He was a veteran of World War I and a medical examiner for World War II.

Taft C. Rains^{*}, Chicago, was a graduate of the Loyola University School of Medicine in 1934. He had been the senior attending physician in the Provident Hospital department of obstetrics and gynecology, and was a former president of the National Medical Association. He died September 21, aged 54.

Blaine L. Ramsay, Chicago, a graduate of the Hahnemann Medical College in 1914, founded Austin Hospital which is now Loretto Hospital. He also founded the Blaine Ramsay Hospital which functioned for almost 20 years. He died October 12, aged 78.

Joseph G. Schoolman, Chicago Heights, died September 17, aged 55. He was a graduate of the University

of Illinois College of Medicine in 1935, and specialized in ear, nose and throat work, for which he was certified in 1939. He was an associate professor at the University of Illinois.

Simon H. Soboroff^{*}, Chicago, died September 5, aged 79. An ophthalmology specialist, certified in 1939, he was a graduate of the Chicago College of Medicine and Surgery in 1910. He was an emeritus member of ISMS.

Katherine Knight True^{*}, Wilmette, was a graduate of the University of Pittsburgh School of Medicine, Pennsylvania, 1926, and specialized in general surgery. She was chief of the surgical department of Mary Thompson Hospital where she died September 26, aged 67.

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LEGISLATIVE LISTENING POST

December, 1963

ISMS TESTIFIES ON KING-ANDERSON

The Illinois State Medical Society testified before the House Ways and Means Committee in opposition to H.R. 3920 -- King-Anderson -- Thursday, November 21. Dr. H. Close Hesseltine, past-president, Chicago, represented the Society assisted by Dr. Joseph R. Mallory, 1962-63 vice-president, Mattoon. Dr. Hesseltine referred to the activities of the Society emphasizing its educational programs on care of the aging. He stressed the successful operation of Kerr-Mills in Illinois and its new, extended benefits--which resulted from a re-evaluation of the program by the Illinois Department of Public Aid and ISMS after 2 years of operation.

"We favor the Illinois Kerr-Mills Law," he told the Committee, "as a way of helping those who need help, and also favor voluntary health insurance and prepayment plans for those who can afford them." Dr. Hesseltine reaffirmed the Society's position that no patient, aged or otherwise, need go without medical services because of inability to pay.

HEARINGS RECESSED INDEFINITELY

It was just a few minutes before 2:00 p.m., Friday, November 22, Washington time, when the telephone rang in the hearing room of the Committee. They had heard the formal presentation of Mr. H. Lewis Rietz, representing the Health Insurance Association of America and other insurance groups, and was concluding its questioning of the witness. The Clerk answered the telephone, spoke for a few moments, and hurried to Chairman Mills with his whispered message. He then moved through the Committee repeating the message. The questioning of Mr. Rietz was quickly ended and Mr. Mills announced a recess for lunch. The audience soon became aware of the importance of the call. The President had been shot. And so, abruptly and decisively, the King-Anderson hearings came to an end. Later, Chairman Mills announced that further hearings on the bill would be postponed, probably until after January 1, 1964.

RECAP OF THE HEARINGS

HEW Secretary Anthony J. Celebrezze had been the first witness when the hearings convened Monday, November 18. The Secretary, accompanied by his aides, reiterated many of the old arguments for a national medical care program for the aged financed through the Social Security mechanism. Mr. Mills

challenged the HEW figures and, during the intensive questioning of Robert Myers, HEW Chief Actuary, obtained the admission that the HEW's proposed tax increase was half as much as would be required to finance the program.

Secretary of Labor Willard Wirtz was the first witness on Tuesday and presented a very brief statement. Again Mr. Mills pressed the contention that HEW was under estimating the projected cost of the program. Senator Karl Mundt (R - South Dakota) charged the Department with obstructing the states' implementation of Kerr-Mills, specifically mentioning HEW's blocking of implementation in Iowa and South Dakota. The Senator also charged specific members of the HEW staff with traveling at taxpayers' expense for the purpose of combating the success of Kerr-Mills.

Most of the morning session Wednesday was devoted to the testimony of American Hospital Association witness David B. Wilson, M. D., Chairman of the Association's Council on Government Relations, and Kenneth Williamson, Director of the AHA's Washington Bureau. As was expected, the AHA gave its support to the Kerr-Mills bill and to voluntary efforts providing medical care to senior citizens, and reiterated the impracticability and absence of need for King-Anderson type legislation. Orville Freeman, Secretary of Agriculture, also gave his support to the proposed legislation.

AMA President Edward R. Annis, M. D., and President-Elect Norman A. Welch, M. D., presented the AMA's formal testimony on Thursday. The AMA statement, containing a wealth of statistics and other factual data, related that the King-Anderson bill was a deceptively expensive, inadequate and unnecessary proposal. The testimony told how Kerr-Mills was providing and increasing the amount of care for the aged among those who could not otherwise provide for such care and that voluntary efforts were providing an ever-increasing array of health care coverage. Doctor Annis pointed out that the U.S. Public Health Service itself had reported that "...10% of the aged account for 39% of the total days of hospitalization for this age group. The same 10% also account for about 38% of expenditures." During the question and answer period, Rep. King (D - California) surprised the witnesses when he inadvertently complimented the AMA statement by admitting that he had no questions. Committee members Karsten (D - Missouri) Burke (D - Massachusetts) Keogh (D - New York) and Griffiths (D - Michigan) took up the questioning but each found witnesses able to answer each charge with concise factual replies. In addition to ISMS, representatives of other medical societies, specialty groups and ancillary organizations also testified Thursday.

On Friday morning, Rep. Bow (R - Ohio) presented his alternate proposal for consideration by the Committee. Mr. Bow was followed by Rep. Cramer (D - Florida) and Rep. MacGregor (R - Minnesota) with similar proposals. Mr. H. Lewis Rietz presented the day's first major opposition testimony. During the Rietz testimony, the validity of HEW's figures was again challenged. Rietz indicated that the tax rate should be approximately 3 times what HEW is asking. Rietz also indicated that HEW's wage base in 1966 would have to be raised from \$5,200 to \$6,000 in order to keep its program solvent.



Illinois Medical Journal

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REPRESENTATIVES OF SEVEN PROFESSIONAL GROUPS at the Illinois Association of the Professions meeting are from left: Prof. C. Dale Greffe, Urbana, Illinois Society of Professional Engineers; Charles Catlin, Chicago, Architects Association of Illinois; Horace A. Young, Esq., Chicago, Illinois State Bar Association; Mr. Franklin Lee, Chicago, Illinois Pharmaceutical Association; Dr. George B. Callahan, Waukegan, ISMS Representative and new chairman of the Association; Dr. E. A. Piszczeck, Chicago, ISMS president-elect; Dr. Robert A. Hundley, East St. Louis, Illinois State Dental Society; and Dr. Glenn I. Case, Kewanee, Illinois State Veterinary Medicine Association.

Association of Professions Inaugurated in Illinois

By ROBERT L. RICHARDS
Executive Administrator

Formal organization of the Illinois Association of the Professions, under the leadership of representatives of seven professions, was assured at a meeting on Thursday, November 14, 1963 in Chicago. Those organizations officially represented at the meeting were: the Illinois State Bar Association, Illinois State Dental Society, Architects Association of Illinois, Illinois Pharmaceutical Association, Illinois Society of Professional Engineers, Illinois State Veterinary Medical Association, and the Illinois State Medical Society. Their officers are shown in the photograph above, together with Dr. George B. Callahan, ISMS representative and newly elected Chairman of the Illinois Association of the Professions.

After three preliminary discussions, five of the organizations have officially approved their organizations' participation in the Association. Two of the seven have not received official approval, but anticipate formal approval within the next sixty days.

Individual members of the seven organizations will be automatically qualified to participate with a dues payment of \$10 per year. Organizational dues are \$100 per year. The purpose of the organization, which if successful, would represent over 50,000 professional peo-

ple in the State of Illinois, is the encouragement of participation by all professions in programs having for their purpose the advancement of professional ideals and professional welfare; the promotion of a free interchange of opinions and information on subjects of mutual professional interest; the fostering of higher standards of professional ethics and conduct; the promotion of programs and measures designed to protect the public and the professions against encroachments on professional practice by those not qualified; promotion of programs to offer pre-professional standards; more adequate preparation for professional life; and finally, the stimulation and fostering of leadership by the professions in public service activities on community, state and national levels.

Associations of Professions have been formed with similar purposes in Michigan, New York, Texas, Florida, Indiana, Wisconsin, Colorado and California.

Any physician interested in becoming a member may do so by writing to me, as I have been designated as the Executive Secretary of the organization with the approval of the Board of Trustees of the Illinois State Medical Society.

Cine Coronary Arteriography

Cinearteriography, a relatively new procedure, is rapidly becoming a popular diagnostic tool. It is used to film arteries in many parts of the body usually to determine the need for surgical correction. Credit for the procedure is due those who developed a new image amplifier and a special tapered catheter.

Cine coronary arteriography, for example, is used to determine presence, extent and possibility of coronary artery disease. It is a relatively safe and dependable procedure that has given good results. With a mortality rate of 0.29 per cent in 1,020 patients, it is well worth the slight risk involved to be able to accurately determine the extent of coronary artery involvement.

A specially constructed thin-walled catheter is passed directly into one of the coronary arteries. Contrast media consisting of 90 per cent Hypaque and 85 per cent Cardiografin is injected and the flow is photographically recorded on 35 mm. Eastman Cineflure negative film with Arriflex cameras at a rate of 60 frames per second. The exposed film is processed immediately and placed in a viewer. The film can be studied frame by frame, in slow motion, or forward and backward, giving the physician an opportunity to study the vessels in detail.

Cine coronary arteriography should be done only by those with competent personnel and adequate facilities. The potential risks should be acceptable to the patient and the physician. The procedure is indicated mainly when the diagnosis of coronary artery disease is suspected but ill-defined or questioned because of atypical clinical features. Cine coronary arteriography may be the answer to the problem of sudden death or acute myocardial infarction a few weeks after being reassured by the physician that the heart is normal.

The procedure also is helpful ruling out coronary disease in patients with aortic valve disease who complain of syncope or retrosternal distress.

T. R. Van Dellen, M.D.

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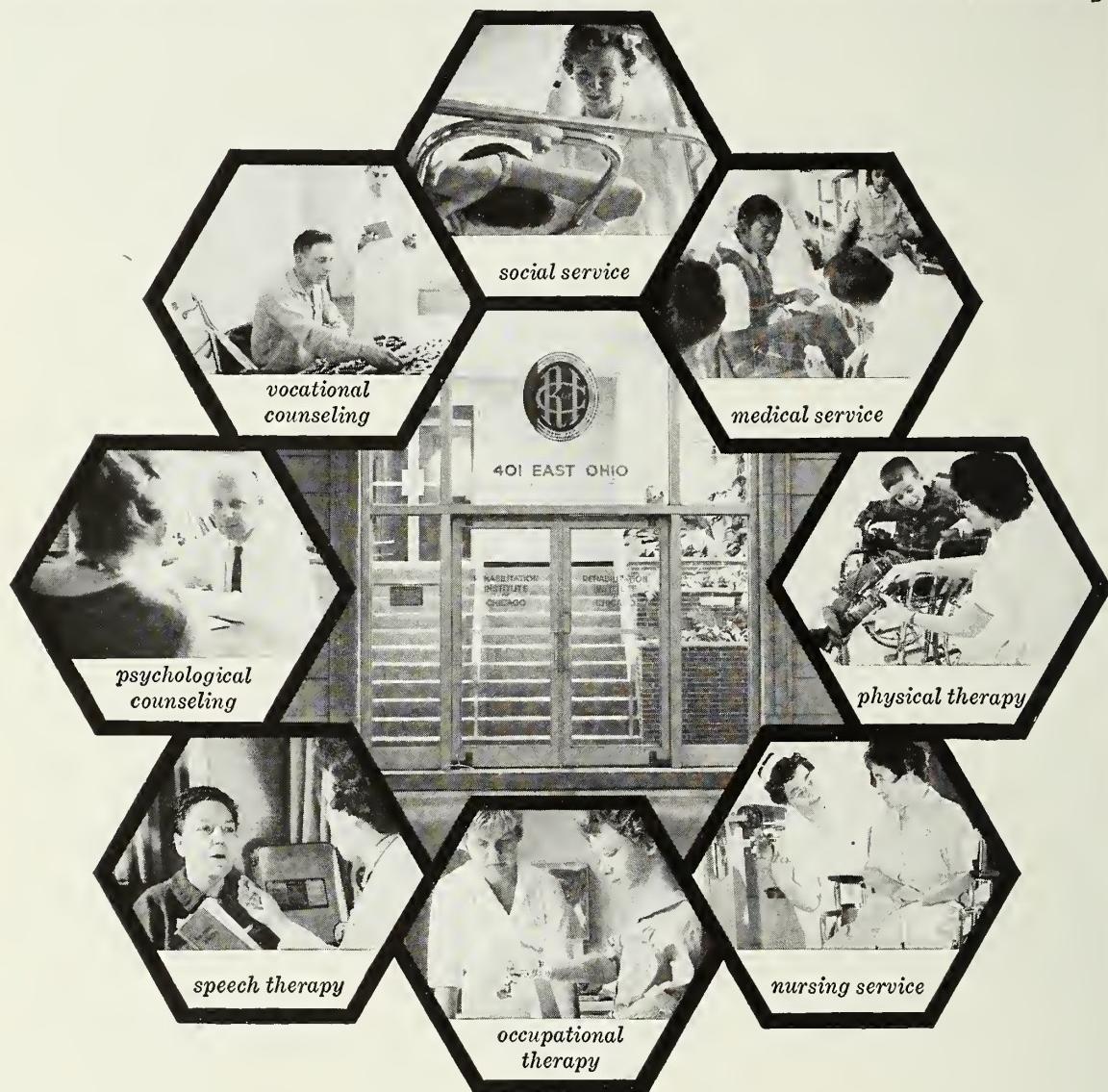
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The Rehabilitation of the Rheumatoid Arthritic

HENRY B. BETTS, M.D.,* HERBERT K. J. FISCHER, M.D.,** HERMAN WEISS, M.D.,*** Chicago

Rheumatoid arthritis is an "incurable" disease of unknown etiology, with a totally unpredictable course and no known single specific remedy. It is a chronic inflammatory disease of connective tissues, manifested by arthritic and constitutional symptoms of varying degree, not infrequently leading to permanent joint deformity and consequent invalidism. As such a disturbing summary of circumstances and events might imply, no disease is more demanding of all facilities of physicians' armamentaria, few diseases emphasize so acutely our inadequacies, none draws more on our patience and every resource. During the periods of inevitable discouragement that many of these patients must face, they become difficult and frequently distrustful. They are prey to the advice and suggestions of countless friends, lay magazines, and, subsequently, charlatans in their search for complete solace and relief. The

best trained of physicians, unable to effect the "cure" all patients seek, are likely to lose patients into the tragic realm of medical quackery.

Osler stated that the main attribute the doctor must have is equanimity, imperturbability. No disease better proves his point than rheumatoid arthritis. One must realize any gain, no matter how small, is worth achieving in the lives of these patients; recognize the discouraging aspect of the disease that influences their lives and personalities; and realize that from this will result discouragement in us as doctors. Through all of this, if we are to really help these people over a lifetime, we must remain resourceful and imperturbed, calling upon the techniques of general practitioner, internist, physiatrist, and surgeon as the need dictates.

Medical Treatment

General procedures during acute attacks entail rest, physical and psychological; adequate nutrition in the form of a well-balanced diet; and analgesics, such as aspirin or acetylsalicylic acid. An average prescription is three aspirin tablets (1 Gram) upon awakening and two tablets (.6 Grams) every four hours throughout the day. Narcotics should be avoided.

Butazolidin may be employed for its anal-

Faculty members in Physical Medicine and Rehabilitation, Northwestern University Medical School, Chicago, Illinois, and Staff members, Rehabilitation Institute of Chicago, 401 East Ohio Street, Chicago, Illinois 60611

*Associate, Northwestern; Staff Physiatrist, RIC.

**Instructor, Northwestern; Staff Physiatrist, RIC.

***Instructor, Northwestern; Staff Physiatrist, RIC.

gesic affect (and is the drug of choice in rheumatoid spondylitis); dosage should not exceed 400 mgms. per day. Toxicity entails agranulocytosis, aplastic anemia, exfoliated dermatitis, gastrointestinal bleeding, sodium retention.

Repeated blood transfusions (250 cc.) may be instituted if salicylates fail.

Though foci of infection are no longer considered as a probable etiology of rheumatoid arthritis, any concomitant infection present can add undue stress and should be treated aggressively.

Lowman feels that 75 per cent of patients seen in the first year of the disease can be managed in a conservative manner when combined with therapy to retain full range of motion of joints and optimum muscle power. If the conservative program is unsuccessful after three to six months, gold treatment should be instituted. Dosage is 10-25 mgms. two times weekly for one week, then 50 mgms. weekly for a total of 1000-1200 mgms. Fibrositis may increase for a day or so and improvement is unlikely for twelve weeks. Treatment should be discontinued if there is no improvement after 1000 mgms. If this therapy is beneficial, the maintenance dosage of gold should be 50 mgms. every three weeks indefinitely. Toxicity is manifested by thrombocytopenia and purpura, agranulocytosis, hematuria, gingivitis, dermatitis.

Steroids are indicated in probably fewer than 25 per cent of rheumatoid arthritics and should be used only after salicylates, butazolidin, and gold have been tried. Exceptions would be in the case of an obviously severely acute and fulminating process and in the case of pre-surgical administration if the patient has previously taken steroids.

Cortisone and hydrocortisone are seldom used today.

Prednisolone and prednisone have less electrolyte affect, are less diabetogenic and should be considered the drugs of choice. Should side effects occur, alternatives are triamcinolone or dexamethasone. The latter two are thought to have a greater vascular effect, i.e., petechiae.

Steroids are contraindicated if there is edema from other causes, if there is an ulcer present, brittle diabetes, psychosis or active tuberculosis.

Steroids are limited in their effectiveness by several factors:

1. Effectiveness decreases.
2. Relapse occurs when the drug is stopped.
3. Steroids suppress but do not eliminate the inflammatory process.
4. Pseudorheumatism may occur causing aching of joints.

Physical Therapy

In severely disabled rheumatoid arthritis, we usually make the observation that in spite of multiple joint involvement with contractures and disuse weakness, the dominant upper extremity has usually maintained a functional residual capacity. This observation indicates that even with frequently recurring acute exacerbations, a joint and the muscles that move this joint can remain functional if motion and continuous use are kept up. It is therefore believed that contractures and disuse weakness in any joint can be prevented, or at least minimized, by continuous motion and functional use of the muscle apparatus. When a physical therapy program is initiated, exact measurement of the prevailing joint range and muscle function tests are essential. For optimal therapeutic benefits, it is necessary to decrease arthritic pain with adequate medications. General heat is usually prescribed in patients with involvement of major joints, and localized heat in patients with involvement of relatively few joints.

The use of heat for treatment of joint and muscle pain has been known and accepted in medicine for many years. Investigations of physiological changes produced by heat have proven that the old empirical experience of the usefulness of heat is justified. It must be kept in mind, however, that the therapeutic effect of heat is mainly one of analgesia. The heat in no way cures or deters the pathological process of arthritis. Many arthritic patients feel that moist heat is more beneficial. However, studies have proven that the physiological changes following moist or dry heat are identical if the amount of temperature change in body tissue and duration of heat application are the same.

Commonly used forms of heat in the treatment of rheumatoid arthritis with general body

heat are: 1) hot tub bath for total body immersion at 99 degrees F, and lasting not longer than 30 minutes; 2) two large heat lamps; 3) a steam heat cabinet mounted on a treatment table, leaving the patient's head uncovered; and, 4) occasionally, a Hubbard tank at 99 degrees F., which allows range of motion exercises. Most frequently used forms of heat for local applications are: hydrocollator packs, infrared, or heated paraffin bath for the hands. Contrast baths can be used for the arms and legs.

After preparation of the joints with heat, range of motion exercises should follow. Active range of motion wherever possible is preferred. During acute exacerbations of joints, passive range of motion might become necessary. In joints with contractures or deformities, passive stretching is frequently required. With persistent contractures in the major joints of the lower extremities, stretching in the physical therapy department can be supplemented by the use of Buck's traction on the nursing floor. Traction splints or braces might also be applied for stretching of the lower extremities. Corrective splinting is frequently used for deformities of the hands and wrists, and for diminishing deformities in the fingers. Flexion contractures in both the hips and the knees under 20 degrees is essential in preparation for ambulatory training. If this cannot be achieved with stretching alone, surgical release of tight tendons and capsulotomies become necessary.

Concomitant with attempts to increase range of motion in the joints, a strengthening program for the weakened muscles is instituted. In muscles where the joint cannot be taken through full range of motion against gravity, active assistive strengthening exercises are given in the beginning. These are changed to active exercises as soon as the strength is adequate to take the extremity through a full range. As the strength increases, weight lifting with sand bags or with pulley mechanisms on exercise tables is added. During acute flareups in joints, isometric muscle contractions are used. This prevents motion in the painful joints and still allows exercise of the muscle transversing the acutely painful joint. During the acute phase, it is sufficient to move a joint once a day through its full range. As

soon as a certain freedom in the joints has been obtained and at least anti-gravity muscle strength is present, range of motion and strengthening exercises to the joint and the adjacent muscles can be combined in one exercise.

Many of our patients have had various forms of massage for long periods of time. It is our experience that massage adds very little in improving joint range and in regaining muscle strength. In planning a home exercise program, massage can or cannot be considered for self-administration.

Re-training in the activities of daily living is instituted early in the program since most of these exercises require active muscle contractions. These activities also contribute to the strengthening of the weakened muscles. Before activities of daily living training can be started, an exact evaluation of the patient's functional status is necessary. The training in this area is geared to the patient's remaining residual function, his safety, and toward accomplishing the various functional activities while expending a minimum amount of body energy.

Achievement of an optimal goal in the activities of daily living also necessitates evaluation and prescription of adaptive equipment for the individual patients. A patient is frequently unable to use and propel a wheelchair, not because of lack of muscle strength but because of a completely inadequate wheelchair. Recent technical advances in wheelchair fabrication allow the prescription of a chair which is tailored for the individual need of the arthritic. I would like to mention only the use of a hydraulic lift in a wheelchair seat for a severely involved rheumatoid arthritic with fused hips and knees. With the use of a lift, the patient could pump himself to the height of a high bar stool, get to a standing position with the help of under arm crutches, get about in the house with the crutches, doing a swing-through gait, and go into tight areas which were inaccessible for him with the wheelchair. When ambulatory activities are started, it is often desirable to take some of the body weight off the painful hip, knee and ankle joints and transfer this weight to the upper extremities. Special adaptation in ambulatory aids for the upper extremities often becomes necessary be-

cause the patients cannot grasp a commercially available crutch firmly. Patients who have swelling and arthritic changes in the wrists can benefit from platform crutches which rest the hand and forearm on a padded platform and allow weight bearing on the forearm and elbow, thus eliminating the use of the wrist as a weight bearing joint. In patients with not too severely involved wrists, but a lack of strong grasp or full fist closure, the building up of a crutch handle is often necessary to make use of an under arm crutch or a forearm crutch possible. The adequate prescription for ambulatory aids requires the availability of all commercially ambulatory aids in an adequately equipped therapy department. After the optimal aid has been determined, the cane or crutch has to be adjusted to the proper length for the patient. With under arm crutches, pressure in the axillary area must be avoided. With canes or forearm crutches, the carrying angle of the elbow during weight bearing should be between 20 and 30 degrees. Gait training usually starts in the parallel bars, but in more severely involved arthritics, gait training might be initiated in a walking tank where buoyancy of the water reduces weight bearing on the joints. When some progress has been made, the gait training will be shifted to dry ground. A walker occasionally becomes necessary but is only used if no other ambulatory aid is safe. It does limit the patient because of its bulkiness.

Unfortunately in rheumatoid arthritis, the basic disease is not curable. Muscle weakness and joint contractures will recur if not counteracted with an effective home exercise program. Toward the end of the treatment program, the patient will be advised in the principles and in the technique of a home exercise program. The patient is familiarized with the use of available forms of heat such as infrared or hot packs. If a bath tub is to be used for hot baths, bars at the top and rough material in the bottom of the tub might add to the patient's safety. The program should emphasize maintenance of range of motion exercises. Muscle groups that are not used during the daily routine should be maintained in strength with a simple weight lifting program. The patient is advised that it is extremely important to in-

crease motion in a joint which could not be used for a number of days because of acute exacerbation. It is not acute pain in an arthritic joint that produces loss of range, but the prolonged lack of motion.

Occupational Therapy

Complex problems in the activities of daily living due to marked loss of joint range of motion need the attention of the occupational therapist. Many of our arthritic patients are not able to tolerate prolonged or excessive range of motion exercises in the physical therapy department. In occupational therapy, if interested in a special program, the patient may move these painful joints repeatedly and with relative ease because his attention has been taken off the pain. Thus, activities in occupational therapy often assist the physical treatment program. Although power tools for wood working projects are available, most sanding and sawing activities are done manually because this forces the use of muscles and necessitates motion in the joints. Other activities frequently used for arthritic patients are weaving, printing, copper tooling, leather work, and painting.

A special contribution is made by the occupational therapist in re-training severely deformed patients in the activities of daily living. Many adaptive and self-help devices have been developed. A long-handled brush or comb, a swivel spoon or a spoon with a built-up handle are simple examples of these devices. Wheel-chair-bound patients often use a reacher to pick objects up from the floor. If considerable limitation is present in the hip and spine motion, special adaptive devices for applying socks and shoes are often greatly appreciated by the arthritic. Most of today's known adaptive devices are commercially available, but the therapist is often called upon to modify this equipment for individual optimal use. After the equipment has been obtained, the patient is instructed in its proper use. Devices might allow the patient to dress himself completely independently, they can help him with his grooming activities, may make it possible for him to feed himself and to write. They can be adapted to other desirable useful functions. The practitioner may sub-

scribe to a self-help pamphlet published by the Institute of Physical Medicine and Rehabilitation at 400 East 34th Street in New York City. The occupational therapist is also frequently called on to devise corrective splints for hand deformities. Most commonly treated deformities are ulnar deviation and flexion contractures of the fingers. Materials used for these splints are plastic, plaster of Paris, molded sheet aluminum, and synthetic materials which have been developed in recent years. If it is determined during the rehabilitation program that long-term splinting becomes necessary, permanent splints are obtained through a commercial brace shop.

For homemaking activities, special holding devices and re-arranging of the working area is often very helpful in allowing a limited arthritic to resume homemaking and cooking activities. A home visit at the end of the rehabilitation period by an occupational therapist prepares the home in a fashion so the patient may apply his regained skills in the home surroundings. With little expense, cooperation from the family and imagination, many standard homes can be adapted and allow arthritic housewives to reclaim some homemaking activities which necessitated hiring of a homemaker or forced the spouse to pitch in to keep the house running smoothly. Casters on chairs can limit prolonged weight bearing on painful joints. Concentration of kitchen tools in one area may decrease the need for ambulation.

Vocational exploration and re-training of the handicapped arthritic also is an important task of the occupational therapy department. If previous occupations have become impossible, the over-all skill of the patient is evaluated. Valuable information and potentials of patients might be discovered. Re-training in special skills might be initiated. The physical tolerance in a simulated work condition can also be determined. If the patient can function well in a relaxed, non-pressing atmosphere, he will have less difficulty resuming work in a competitive situation.

Nursing

The nurse is the member of the ancillary "team" who spends the most time with the

patient and may be the keystone to the arch of rehabilitation in the rheumatoid arthritic.

Positioning the patient is the realm of the nurse, being sure of a non-sagging bed and that the legs are maintained in extension, the feet at 90 degrees, no pillow under the knees. Upper extremities should be in a position of function, and, if splints are applied, the nurse must be constantly assured that the position is proper and that they are comfortable and non-abrasive. If the disease process is severe, and a large number of joints are involved, the patient may maintain almost total immobility, necessitating re-positioning by the nursing staff every one or two hours, as in the case of a paralytic, to prevent skin breakdown. In addition to turning, skin care should consist of cleanliness and maintenance of good turgor, being aware that areas too dry may crack and break down, and that areas too moist are especially liable to deterioration. Daily alcohol baths, with application of lanolin containing lotions, are helpful in accomplishing this balance. Skin must be meticulously and routinely examined daily for signs of breakdown, which might alter the approach to turning and positioning. This is particularly true in patients receiving steroids since they are very susceptible to the formation of petechiae, which may become nuclei of decubiti formation. The treatment of decubiti is, mainly, the removal of all pressure until complete healing. In addition to this, any superimposed infection must be treated with antibiotics locally and/or systemically. The application of plasma, sugar, and peroxide, or scarlet red has been found useful as well. Surgical debridement may be necessary, and, in very severe cases, plastic surgery in the form of grafting and the application of skin flaps may be indicated.

One of the most essential functions of the nurse is to accomplish the carry-over of what is learned in therapy areas to practical application. This can entail assuring that exercises to maintain range of motion are carried out and assisting in the application of procedures learned in self-care and transfer activities, and in all areas that help the patient with maximum independence. Ordinarily, good nursing care entails doing everything for a patient; in rehabilitation nursing, essential needs must ob-

viously still be met and those things impossible for the patient to accomplish must be performed by the nurse, but there is strongly needed the subtle omission of duties by the nurse of the activities the patient could and should carry out, if he is to maintain maximum strength and independence.

The psychological approach taken by the nurses and the attendant staff is of vital importance in the rehabilitation of the arthritic. A genuine sympathy for the pain and fear these patients suffer, coupled with a gentle firmness and optimism, can make the difference between total despair and dependency, and being rehabilitated to independence and a satisfying life.

Surgery

Surgery for rheumatoid arthritis may entail:

1. Nerve blocks and sympathectomies for the relief of pain.
2. Arthrotomy to remove loose bodies and to excise spurs.
3. Synovectomy when synovial thickening interferes with function.
4. Capsulotomy and tendon lengthening procedures for contractures.
5. Osteotomy for ankylosed joints.
6. Arthrodeses of useless joints into positions of function.
7. Arthroplasty to create useable joints. In recent years, metallic prosthetic joints have achieved wide possibility.
8. The repair of ruptured tendons and ligaments.
9. The transfer of useful tendons to joints with tendons that are unable to function.

Psychological Aspects of Arthritis

There has been much speculation and considerable research on the psychosomatic nature and the etiology of arthritis, and we have had patients who were themselves convinced of the psyche as the prime mover behind the arthritic condition. However, without entering into the pros and cons of this question, from a practical point of view, it is clear that the psychological aspects of this disease compli-

cate both the early diagnostic picture and the treatment program.

In rehabilitation, the question is often raised why so many arthritics in the more advanced stages are seen, and it is often wondered whether it has been the patient who has procrastinated seeking professional help until the disease has become more debilitating, or whether earlier case finding is essentially a medical problem. At the other end of the rehabilitation process, it is asked why many arthritics permit themselves to regress physically after they have been brought to the point of maximal physical benefit, and discharged from the hospital.

In the treatment program, it is found that pragmatism must be our guide. The rehabilitation of the arthritic patient is a gradual process in large measure because of the patient's pain problem. Arthritics understandably tend to favor their involved joints, even when these are not "hot". Much of this is probably protective in nature; a kind of warding-off-pain syndrome. Psycho-social evaluation shows no malingering per se, but frequently a psychological overlay, which tends to restrict limb movement—in much the same way, say, as that evidenced in the low-back syndrome.

There are exacerbations and limitations of pain which the patient associates with weather, with changes in the temperature of the treatment ward, with diet, too much or too little exercise, etc. We find that these changes in tolerance, however, are related to "events" of psychological import—a recurrence of family problems, a sudden telephone call or letter, the nature of the "therapeutic climate" on the nursing floor at the moment, or reaction to another patient. These "phasic" manifestations tend to complicate the treatment picture and make necessary a flexible prescription and regimen.

Unfortunately, many aspects are frequently operative at the same time—domestic problems, psychological defenses, and realization of occupational limitations, as well as the physiomedical situation. Seldom do we see a purely "functional" psychological problem in the severely disabled arthritics in our population. Our approach has been to attack all these areas through the many disciplines in the rehabilitation team, though not necessarily at the same

time. In some instances, classic psychoanalysis has been utilized along with the physically reconstructive treatment program; in others, emotional supportive therapy has been effective through the Psychology, Social Service, or even Occupational Therapy departments.

The treatment program of the arthritic is frequently retarded or obstructed when the patient is struggling with such problems as family discord, lack of financial security and/or unemployment. Unless the pressures from these problems are alleviated, a patient cannot be expected to concentrate on his comprehensive rehabilitation program. It is for this reason that the social worker should see the patient, so that any existing stressful situations can be ascertained, and an attempt at solution of these problems be undertaken. In those cases where the problems have been brought about by the patient's poor personality structure, one must be careful to refrain from attempting to change his personality without suitable professional advice.

Of significance is the patient's "self-concept" and ability to handle tension and resentment. However, an arthritic with seriously deformed joints is obviously suffering from an insult to his body image, and his physical rehabilitation is likely to be accompanied by an increasing dependency. It is fruitless to speculate which comes first—the psychic chicken or the organic egg. From a psychological point of view, treatment involves an attempt to re-establish a feeling of worth on the part of the individual. This involves active rather than passive participation in the rehabilitation process. From a prone position in bed to a sitting one, to the wheelchair, to the Hubbard Tank and whirlpool bath, to the Physical Therapy gym and Occupational Therapy A.D.L., to ambulating with crutches or a cane—these are gradual steps not only in physical rehabilitation but in the patient's tolerance of himself as an individual. They may represent significant changes in his outlook on the world as well. Each mobilizing discipline must be brought in at the appropriate time and no sooner, each fitting snugly into what the patient needs at that time, and what he wants most for his own personal rehabilitation. In this manner, we hope not to fractionate the patient, but to focus on

the individual—not the arthritic body, but the disabled person as a functioning being.

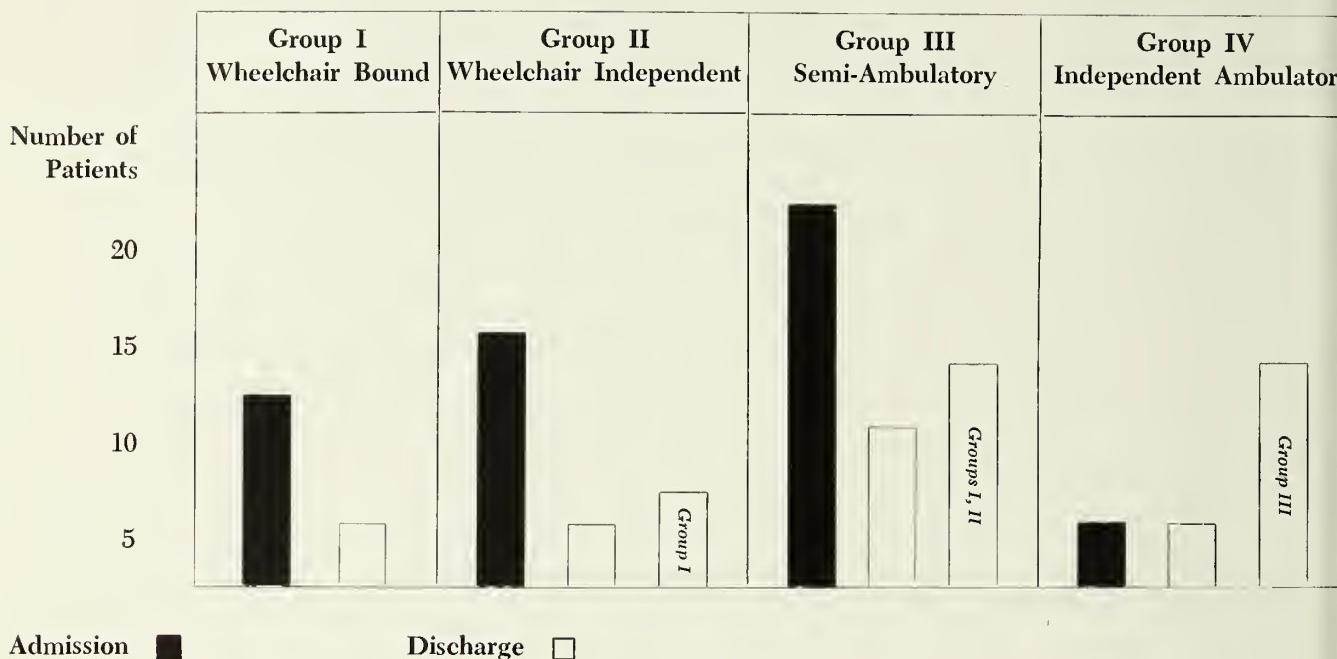
Vocational Counseling of the Arthritic

In working with the arthritic, the vocational counselor is generally aware of three problems characteristic of the vocational rehabilitation of arthritics. The first of these concerns a personality development which one tends to see in more involved or longer term cases. This type of patient must actually see some benefits of an anticipated physical therapy program before the vocational counselor can hope to get anywhere with him, and even then, he may not be convinced, considering it only another of the vicissitudes.

The second task the vocational counselor faces, is that of helping his patient become as vocationally un-handicapped as possible. How does his arthritis affect what he has used to make a living? The assembler, accountant, typist, diemaker, or pianist suffers the complete loss of his vocational self when his hands become too arthritically involved to manipulate a pencil or tools. This is also true of the janitor, sales lady, shop foreman, or mailman, who winds up with swollen, painful, and malformed ankles, knees or hips. The vocational re-direction of such patients can involve a complete re-assessment of interests, aptitudes, and abilities to find a vocation in which the disabled person will have no, or a minimal vocational handicap—the tenet upon which vocational rehabilitation is built.

Probably the most disheartening aspect of the disease is its instability. The patient may go through a physical upgrading program, use fingers or muscles that he hasn't used in years, be ready for his first job in months or years, and suddenly the telephone call comes that he has experienced an exacerbation and cannot now even get on the bus to go to work. This is the more unusual case, of course, but the counselor faced with the question of his patient's productivity on his "bad days" may have to help him gauge a goal attainable on *any* of his days, or find a reasonable solution with the employer's help. In other words, the patient needs to be armed with the assurance that in spite of his disease, he "can make it."

Statistical Survey of Functional Categories On Admission and Discharge



Statistical Analysis of Rheumatoid Arthritis As Inpatients

Forty-six rheumatoid arthritis with severe joint involvement were used in this survey. These patients were inpatients at the Rehabilitation Institute of Chicago and completed an intensive rehabilitation program. The patients were classified on admission into four groups. Upon discharge, the patients were reclassified into the appropriate groups. The four categories used were:

1. *Wheelchair bound*—In this category, the patient is unable to wheel his own wheelchair. He can tolerate sitting but is dependent in almost all areas of activities of daily living.
2. *Wheelchair independent*—In this category, the patient is capable of wheeling his own chair and can perform some activities of daily living.
3. *Semi-Ambulatory*—In this category, the patient is capable of ambulating but requires assistance and the ambulation is restricted to short distances. Furthermore, the patient is independent in most of his activities of daily living.

4. *Fully ambulatory*—In this category, the patient is functionally almost normal. The patient can ambulate almost without limit and is independent in almost all activities of daily living.

Of the forty-six patients used in this survey, thirty-four were females. The age group span was from twenty to seventy years old. Approximately thirty-three per cent were in the forty to fifty age group.

COMMENTS: It is apparent to the reader at a glance at the graph that great strides were made with the patients functionally. Sixty-five per cent of the patients were significantly upgraded in most instances one functional unit. In many instances, they advanced from totally wheelchair bound or wheelchair independent to weight-bearing or semi-ambulatory. Twenty-eight per cent of the total number of cases admitted to the Institute were upgraded to complete ambulatory independence. In no instance did a patient show regression but there were many instances of active exacerbation of symptoms while under an intensive rehabilitation program. These patients were managed with a combination of salicylates and steroids in conjunction with in-

tensive physical therapy. The symptoms subsided and the patient, while on therapy, made functional improvement. Incidentally, the reader may be further puzzled by the lack of gain in the patients in the fourth category. The three ambulatory independent patients treated in category four, although functionally independent, had evidence of active rheumatoid arthritis with intense pain. Although these patients do not seem to have made any significant gains, they did show some functional improvement and generally had considerable relief of their symptoms following an intensive program as outlined previously. Although we have shown that severely involved rheumatoid arthritis can make significant functional gains, it is worthy of re-emphasis at this time, that earlier management could do much to prevent the physical deterioration that is often present.

Summary and Conclusions

The authors have attempted to describe the complexity of the problems of the management of the rheumatoid arthritic. It is a disease that affects the patient organically and inorganically, physically and functionally. It immobilizes both the body and the psyche. The approach to the problem of the management of the rheumatoid arthritic must be a total approach, treating the patient as a whole. This requires the combined efforts of many specialists. The integrated approach has been previously described in the body of this article. Although at this time our efforts have been fairly successful, it is by no means the last

word. It is a beginning, a beginning for the medical community in recognizing the problems of the total patient.

A statistical analysis of forty-six severely involved rheumatoid arthritics has been compiled and has shown that sixty-five per cent of these most severely involved rheumatoid arthritics were upgraded significantly in many functional areas. The patients in most instances were rehabilitated to almost independent care and thus relieved the responsible members of the family of the burden of looking after their ward. In many instances the patient can look forward to economic productivity. In many more instances, a relieved relative could then feel secure enough to leave the patient alone so that he could return to an economic form of productivity.

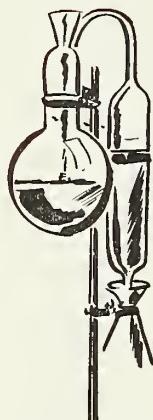
In general, the authors have experienced that an upgraded physical medicine program will help the arthritic significantly while in the acute or during a remissive stage of his disease. Ideally the management of rheumatoid arthritics should be one of prophylaxis. The medical community should be encouraged to initiate a more vigorous and earlier management of the arthritic with the competent facilities of a physical medicine rehabilitation service.

Acknowledgement

The authors wish to extend their thanks to Doctor William Kir-Stimon, Chief of Personal Counseling Service for his contribution to this article.

Human Experimentation

REV. THOMAS O'DONNELL, S.J., LL.D., *Maryland*



Since we use patients to ultimately test our drugs, we are naturally faced with moral and ethical values. Medicine has always honored the precept as contained in the Hippocratic Oath, that the doctor works in the close interests of his patient. Indeed, in the American Medical Association's Judicial Committee's principles of medical ethics, it is stated that a single rule governs the entire medical profession. It is crystallized in the word "interest." The interest of the patient. In the Declaration of Geneva in the conclusion of the Nuremberg Trials in 1948, it is stated that the "health of my patient will be my first consideration and interest."

Indeed, Pope Pius XII has also, in a discussion of the histopathologists in 1952, stated that "Man is a personal individual with dignity, and this dignity must not be subordinated to the community."

In the scientific community there are two types of experiments in terms of objectives and these are challenging. We will have to put them up as challenging questions to Father O'Donnell.

The two types of experiments are: 1) the experiment designed just to verify a theory or an assumption. How far can we go? What risk can we take? On the other hand, there are the experiments of a therapeutic nature which, indeed may benefit the patient individually at the time the drug is given, and this benefit may actually provide us with further knowledge.

We must ask ourselves a fundamental question: Is there ever a time when the desire to advance knowledge alone will coincide with the benefit that an experimental subject might derive in a theoretical sense only?

The question of consent comes up, whether it should be informed, and to what extent; and lastly the question: Is there a code to serve the interests of mankind and of science at the same time.

Father O'Donnell comes to us from Woodstock College. He has been, for a long time, associated with Georgetown University School of Medicine, and is indeed the professor of medical ethics at Georgetown.

VINCENT J. COLLINS, M.D., *Moderator*

Part III of the proceedings of the Symposium "Human Experimentation, Evaluation of Drugs" sponsored by the Catholic Physician's Guild of Chicago.

Human experimentation is an aspect of medicine which has aroused considerable moral speculation both on the part of the moral theologians and on the part of the medical profession.

Medicine, of course, is an empirical science, and every difficult case is likely to have some aspects of experimentation in its therapy. In a certain sense the very idea of a differential diagnosis implies some degree of experimentation. But it is not in this every day context of medical trial and error that the moral problem arises.

Nor is there any acute moral difficulty in what might be termed the "do or die" experimental procedure which can be extremely dangerous in themselves and the outcome of which may often be extremely doubtful, when such experimental procedures are employed as a "last ditch stand" in terminal and rapidly deteriorating types of illness.

Such, for example, would be the case of a very delicate and dangerous brain operation on a patient who is already doomed to proximate death due to a brain tumor. In such a case the patient has really nothing to lose, and everything to gain if the experiment should be successful. Such "one last attempt" procedures, when they hold out some real hope of success, even though it be slim, are obviously acts of wise administration.

The Problem

The real problem arises in the research laboratories, where procedures and remedies which have been tested on experimental animals must finally be tried on human subjects.

When the experimental procedure is fraught with real danger of serious injury or even death, and the experimental subject is a healthy individual in whom disease must sometimes be first induced; or when the subject, even if already afflicted with some illness, is not in any terminal stage; the morality of such an experiment must be tested against our concepts of man's limited dominion over human life, and against the basic concepts of right order.

A Definition of Medical Experiment: By the term "medical experimentation" in the present discussion of its moral implications as applied to human subjects is understood those medical or surgical procedures which are recognized to

involve some degree of danger and which are experimentally applied to the individual subject, not so much in his own interest as in the interest of humanity through the advance of medical science.

The moral implications of this sort of experimentation can vary according to the various methods of procedure on various types of human subjects.

With regard to experiments which are performed upon people who are in good health, we must distinguish between those procedures which merely involve testing the reactions of new and potentially dangerous drugs in the normal human being and those which also involve the process of first inducing some disease in the healthy individual as part of the experiment.

With regard to experiments which are performed on people who are already ill with reversible disease, we must distinguish between substituting an experimental remedy in place of proven therapies which are available, and proceeding along experimental lines because there is no proven therapy for the disease.

Finally, with regard to the chronically ill, we must distinguish that type of experimentation which we might call "incidental," in the sense that it is unrelated to the specific illness, or at least not directly concerned with the present malady, but is directed toward some other contribution to medical knowledge.

Moral Aspects of Human Experimentation

The moral aspects of such experimental procedures are primarily concerned with: (1) justifying the concept of a directly intended mutilation for the benefit of medical science in the light of the principle of totality; and (2) justifying the exposure to the danger involved in the experiment in the light of man's limited dominion over his own body. These two moral implications can be pin-pointed as—the element of danger and the element of consent.

General Principle I: Medical experiment which involves a directly intended suppression of an organic function or the quasi-mutilation of the organ itself is not immoral for that reason, provided that the mutilation is not serious or the organic functional suppression is not of a

serious nature—or at least, if it is extensive, is not permanent.

This activity in the service of humanity which inflicts some minor or accidental mutilation, or involves the danger thereof, would seem to be within the concept of man's restricted and useful dominion over his own substance which right order demands. In other words, considering man in himself and in his relations to other men, such an act would seem to come under the concept of "wise administration" and not flow over into the concept of "absolute ownership."*

Moreover, in his address of September 14, 1952, on "The Moral Limits of Medical Research and Treatment," Pius XII, dealing directly with the principle of totality, spoke as follows:

"The patient, then, has no right to violate his physical or psychic integrity in medical experiments or research when they entail serious destruction, mutilation, wounds or perils."

General Principle II: Where there is question of a procedure which carries with it considerable danger of serious mutilation it is evident from the principle of totality that to directly intend such a mutilation or such a procedure, in the interests of medical experimentation, is outside of man's restricted and useful dominion over his own body and is contrary to the imminent teleology of the parts thereof.

Such an act must be looked upon as one of absolute ownership rather than one of wise administration.

The distinction between administration and ownership here is as difficult to describe as it is important. As the danger connected with the experiment increases we reach a point where the entire moral object of the act changes, and an act which could have been classified as one of wise administration, and therefore permitted, becomes a completely different act—an act which would be proper only for an absolute owner, and therefore an immoral usurpation of an exclusively divine prerogative.

*Blood transfusing and skin grafting, voluntary exposure to the common cold, procedures involving excessive diuresis or temporary frontal cortex suppression would be examples of such minor mutilations or quasi-mutilations.

Administration or Ownership?: Danger can be defined as the objective probability of incurring some evil, and in the realm of medical experimentation we would say that the objective probability of so compromising the patient's physical or mental well-being and integrity that ordinary men would judge the probable risk to be a considerable one, and would consider the probable result as a serious affliction, would take the experimental act out of the realm of administration and put it into the category of ownership.

Danger can be more or less serious according to the seriousness of the evil which might be incurred as well as according to the greater or lesser probability of incurring the evil at all.

Rules for Human Experimentation

With these two basic principles in mind we may lay down certain definite rules for the guidance of medical experimentation on human subjects:

1. The human subject must be made aware of the full extent of the risks involved in the experiment and he must freely consent to the entire procedure.

The preliminary is explicitly demanded by the American Medical Association in its directives regarding proper procedures relating to human experimentation and is likewise stressed by Pius XII in the following words:

"In the first place it must be assumed that, as a private person, the doctor can take no measure or try no course of action without the consent of the patient. The doctor has no other rights or powers over the patient than those which the latter gives him, explicitly or implicitly and tacitly. On his side, the patient cannot confer rights he does not possess. . . ."

2. All safeguards must be employed to protect the patient from injury.

This rule includes the supposition that the experiments have been first tested on animals, that the experimenters are qualified scientists, and that all accessory precautions are at hand to avert danger, counteract harmful effects, or terminate the experiment should the need to do so arise.

The Judicial Committee of the American

Medical Association include this second rule under their requirements as follows:

"... (2) the danger of each experiment must be previously investigated by animal experimentation, and (3) the experiment must be performed under proper medical protection and management."

3. A dangerous experiment is not to be undertaken unless the results cannot be obtained by other methods of study and no experiment should be undertaken when there is real reason to believe that death or serious injury will result.

The reasoning behind this third rule is based on the fact that the danger connected with a legitimate experiment is not intended by the experimenters. Precisely as danger, it in no way contributes to the good accomplished by the experiment and thus, in its moral aspect, it can be approached under the principle of double effect. And under this principle one cannot reasonably permit an evil effect if the intended good can be reasonably obtained in some other way.

Moreover, in the application of the principle of double effect in medical experimentation, there must be a special emphasis on the need to evaluate the proper proportion between the good intended and the evil permitted.

Certainly some experiment-connected danger may be permitted, but it must be remembered that the proportion here is between the good accruing to the commonweal in general, through the advance of medical science, and the evil of the danger of injury to an individual member of society.

In estimating the proportion between the good thus intended and the evil permitted, the scale is already heavily weighted in favor of the individual subject of the experiment; and a possible contribution to the common good, though not without its importance, weighs lightly against serious harm to a given individual. This is so because society in general, or the common good, exists for the individual, not vice versa. It is true that in the event of impending common catastrophe the common good

prevails over the individual good; but this is only because the common good must be preserved in the interest of many individuals, and not because the common good is an end in itself.

Moreover, once the danger has reached that degree of seriousness which makes the experimental act cease to be one of administration and begin to be one of absolute ownership, there can be no question of applying the principle of double effect at all, since the moral object of the act itself has become evil. Danger should not exceed the meaning of moderate. There are several variables in the analysis of moderate danger. There is a qualitative variable and a quantitative variable. If you will, these are coefficients.

An Invalid Distinction: The various secular codes of morality regarding medical experimentation, such as the directives of the American Medical Association and the decisions of the Nuremberg Medical Trial, agree substantially with the three basic rules listed above. Some of these secular codes, however, while condemning the type of experiment wherein there is reason to believe that death or disabling injury will result, strongly imply that even these might be permitted provided that the experimenting physicians themselves also serve as subjects. This distinction is completely illogical, as Pius XII has pointed out in the following words:

"What pertains to the doctor with regard to his patient is equally applicable to the doctor with regard to himself. He is subject to the same broad moral and juridical principles as govern other men. He has no right, consequently to permit scientific or practical experiments which entail serious injury or which threaten to impair his health to be performed on his person; and to an even lesser extent is he authorized to attempt an operation of experimental nature which, according to authoritative opinion, could conceivably result in mutilation or suicide. This also applies, moreover, to male and female nurses, and to anyone who feels himself disposed to offer his person as a subject for therapeutic research. . ."

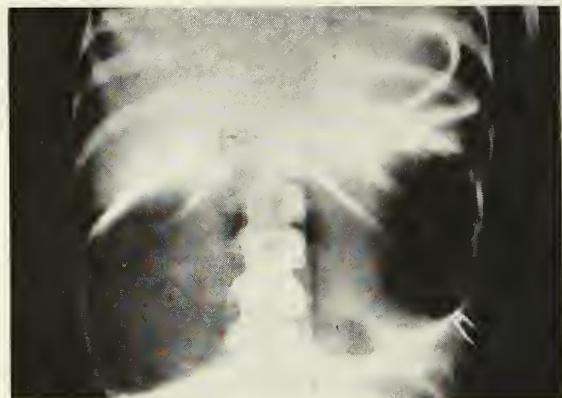
The View Box

Leon Love, M.D.
Director, Diagnostic Radiology
Cook County Hospital

Patient was a 13 year old white male, who gave a history of a sudden acute illness characterized by diarrhea and marked dehydration lasting for about 2 weeks. He suddenly developed acute abdominal pain.

Physical examination revealed an acutely ill patient with a temperature of 102° and board-like rigidity of the abdomen. Diffuse tenderness over all quadrants was noted. WBC - 42,000, PMN - 85%, RBC - 2.8.

The patient expired after 24 hours in the hospital.



Film 1



Film 2

What is your diagnosis?

- 1) Ruptured ulcer
- 2) Acute pancreatitis
- 3) Toxic dilation of colon resulting from ulcerative colitis with perforation
- 4) Acute mesenteric thrombosis.

(Continued on page 533)

The Red Shoes of Life

Breaking away from the traditional in its Christmas message, IMJ presents a penetrating and timely analysis of the modern way of life by Dr. N. Gillmor Long. Using the analogy of the beautiful ballet, "The Red Shoes," Dr. Long challenges physicians and their patients to take a long look at themselves and their goals.

A delightful ballet, beautifully portrayed in the movies, starring Moira Shearer, was based on Hans Christian Andersen's fairy tale, "The Red Shoes." The story hinges on a magical pair of Red Shoes that, once worn, dance the owner on through eternity. Those of us fortunate enough to have seen this ballet will never forget the results of the magic art of choreography nor the restless, overpowering continual display of seemingly boundless energy—a nightmare of frustration.

Joseph Conrad phrased it neatly—men lead lives of quiet desperation; always seeking something just beyond their grasp. It is this zest for the illusions of life that drive men into outer space, to experiment with the unknown and gamble with the many odds of life without quite knowing or realizing the driving power behind the Red Shoes of daily living.

There could be many analogies drawn from this through application to our daily living. Possibly the dominant thought coming to my mind is the ever increasing, mounting tensions so apparent and either consciously or subconsciously effecting most of us. The inability to adjust to pressure (most of it in final analysis self-exaggerated) of routine problems, the unexpected, the undesirable disturbances of our work rhythm, the nuclear war threat; the combination of these factors unfortunately sweeps us with the driving power of the Red Shoes.

Each of us has his hidden, closely guarded, locked closets of the mind, our own problems of living and continual adjustment, for life is growth and change itself. Only by continual adjustment can we begin to rationalize our individual Red Shoe Problem. The advantage of an organized Rehabilitation Center for the serious

physically handicapped is the partial elimination of self pity by observing others far worse off than we are. There is also the sobering thought, that in Naples each night, there are over five thousand homeless, poverty beset individuals looking for a place to sleep and eat. We can always call to mind people with real basic problems of paralysis, blindness, cancer or an ugly deformity, who quickly neutralize our relatively small problems—such rationalization has the power to put our Red Shoes at rest and wipe out, to a certain degree, our individual frustrations.

What has all this to do with medicine? An estimated 80 per cent of the patients requiring tranquilizers, sedation and medical treatment stem from what is professionally termed—psychological overlay—nature's revenge, as it were, for an over-charged nervous battery of tension. Sometimes it comes in the form of a revenge syndrome (against the world, against the boss who doesn't show any signs of appreciation of our worth, against a fellow worker, perhaps more efficient than ourselves) usually it can be traced to the child mind in the adult body—some folks never grew up to adjust to adult responsibilities.

One could write a book on all the ramifications of this approach for it touches at the core of human weakness and inadequateness. Happy, indeed, are those who learn early in life to do the best they can, then with a Charlie Chaplin shrug of the shoulders, put aside the Red Shoe tension and tackle the next problem. There is little to be gained in fighting windmills and a reasonably adjusted person is usually healthy, both in mind and body.

N. Gillmor Long, M.D., Chicago



Dr. Benjamin H. Orndoff of Park Ridge, a pioneer Chicago radiologist and professor of roentgenology at Loyola University Stritch School of Medicine, had been using x-rays for nearly 10 years when the apparatus shown in the picture was produced in 1913.



Early fluoroscopic examinations were done as shown this picture, with the doctor darkening his eyes in a light proof box which contains a phosphorescent screen. X-rays from the tube behind the patient passed thru her body and were shown up faintly on the screen.

Radiology in Chicago

B. H. ORNDOFF, M.D., Park Ridge

The purpose of a professional organization is to aid and support the ideals of its members. Those of us who can look back to the time this society was founded, may well understand the factors concerned with the need for creating it.

Röntgen gives the date of November, 1895, for his discovery of x-rays. It was announced in America early in January of 1896, and seventeen years later the Chicago Röntgen Society was incorporated.

It is obvious that during these years the early steps in the development of the science of radiology were taking place, and the demands for organized radiology were being created. The full record of the activities in radiology during these 17 years has, of course, not been completely recorded. Many of the steps leading to the art and sciences of the practice of medical radiology as we know it today may very well never become a matter of recorded data.

I would like to confine my remarks mainly to my memory of conditions which I believe contributed to the molding of ideals in those who founded and supported the society during the first years of its life.

It must be remembered that at the time x-rays were discovered the impetus to understand and make useful electricity in the practice of medicine was being expanded by leaps and bounds. It was being studied in the department of physics in colleges and universities. Inventors and designers were engaged in research and manufacturing of electromedical apparatus for commercial purposes, and there was also a large group of experimentors from all walks of life who were playing with electrical devices as a sort of scientific amusement, or were motivated by a desire to produce something useful in clinical medicine or possibly unearth a notable discovery.

During these years there was also a rapid spread of the use of x-rays or radiology into fields of industry and research, and many other divisions of human activities. Notable advances followed closely one upon another, but its usefulness in the medical science was recognized and pursued eagerly very early after its discovery. Manufacturing of electromedical de-

Professor of Roentgenology, Stritch School of Medicine, Loyola University.

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vices required tools and skills readily adapted to the fabrication of instruments to produce x-rays. However, there were many examples where physicians gave up their life in medical practice in order to apply the advantages of a medical education to invent, improve, and build superior tools and to enhance the technique of successful use by their colleagues in clinical medicine. Of this there are many outstanding examples throughout our country, but none seem more notable than the Wagner Brothers of Chicago.

Rome V. Wagner's invention of the Mica Disc, to replace the lead free glass discs, not only multiplied its durability, but greatly increased the efficiency of the x-rays for medical uses. Certainly one of my very pleasant memories while yet a medical student was a visit in company with my teacher, Professor Noble M. Eberhart, to the Western X-ray Factory on State Street where we met Dr. Wagner, and heard him explain some points of improved technique. In my memory this visit was some time before 1904, and on later visits I was fortunate in meeting his brother, Thurman. Shortly before they were forced from their fertile activities by the dark Hand of Destiny, so common with Pioneers of Radiology, it was in 1906 or 7 that I paid my last visit to their factory. Sadness filled my heart to overflowing. Rome with multiple skin ulcers on his hands, body, and face, and skin showing early jaundice, and metastasis to the liver was evident. Thurman, with back and chest ulcers, amputated fingers, and axillary glands. Here were two brothers, fine gentlemen, who had earned their medical degree the hard way of self sacrifice and labor, attending colleges at night, and working during the day. Rome graduated from Bennet Medical College, which later became The Chicago College of Medicine and Surgery, and still later Stritch School of Medicine of Loyola University, and Thurman graduated from the College of Physicians and Surgeons, which in turn later became the School of Medicine of the University of Illinois. Both pursued their duties intensely, and the path they followed to their useful position in life was steep and arduous. Both recognized the magnitude of the sacrifice that they were soon to make, but with supreme fortitude and courage they carried on to the end, Rome about one year

following my visit, and Thurman about five years later.

Their factory and business was united with Schidel X-ray Company, creating the Schidel Western X-ray Company. This company was later united with the Victor Electric Company to become the Victor Electric Corporation. Still later this corporation was united with Snook and other companies to become the General Electric X-ray Corporation.

The manufacture of vacuum tubes by Emil Grubbe at his laboratory on Pacific Avenue, now LaSalle Street, began before Roentgen's Discovery of x-rays. One of his assistants, Friedlander, later made tubes in the Schidel Company. Still later this work was taken over by Kesselring, who furnished tubes adapted to all makes of transformers and static generators. In his factory on Lake Street, very useful technical advances were added which gave longer life, and elevated tube efficiency for diagnostic purposes. Following Kesselring, Gast continued the factory until the hot Cathode tube of Coolidge became universal.

Here in Chicagoland there can be no doubt but that x-rays were being produced by experiments in the study of the fluorescence in Crooke's tubes before the discovery date announced by Roentgen. These vacuum tubes were being produced in Chicago as well as in many other locations and laboratories in physics departments of universities throughout the world were using Crookes or Hittorf tubes in experimental research. When high tension electricity excited the gasses in these tubes, the so called apple green fluorescence appeared, and its significance was being analyzed. Roentgens' observations of something emanating from the tube into space constituted the discovery of what he called x-rays.

To these early workers the kinship of x-rays and electricity seemed well founded as soon as the x-rays were discovered. A century had lapsed since Ampere (French), Franklin (American), Ohm (German), and Volta (Italian) with many others, had added their contributions to the science of electricity that made the production and discovery of x-rays possible. The integration of electricity into the science of medicine was indeed quite well established at the turn of the century. At that time there were many even in the medical pro-

fession who believed the field of x-rays belonged to that branch of medical practice designated as electrotherapeutics. Many of our medical schools had established departments while others gave training through special lectures and demonstrations of practical technique in the outpatient clinics and dispensaries. Independent colleges and schools of electrotherapeutics were organized within the profession of medicine and diplomas were granted to their graduates. Students were accepted in many of these colleges other than graduates of medical schools. The urge of this group of graduates to obtain a medical degree soon became very strong when they undertook the practice of electrotherapeutics.

There was another situation now seldom referred to, but which exercised a deep meaning in the minds of physicians who were zealous of their position in ethical practice and concerned about their reputation among physicians in organized medicine. Many of the divisions of medicine, gynecology, dermatology, urology, as well as general practitioners were quite liberal in their praise of electrotherapeutic procedures, but they shunned positively any association with the electrotherapeutic groups or societies. Conversely those composing the electrotherapeutic groups were highly self conscious of a professional slight (rebuff, snub, high hat, disregard) and were prone to retaliate by down-grading the physician who wished to confine his work to diagnostic and therapeutic use of the x-rays dubbing him as the "X-ray Man". In other words they fanned the fires for creating the onus and took advantage of every opportunity to degrade the professional standing of the x-ray man. When Roentgenologist, and later Radiologist were applied to those who specialized in the use of x-ray in medical practice the stigmatized name x-ray man became essentially defunct. At this period there was a sizable group who because of this onus felt inclined to avoid being known as specializing in electrotherapeutics or x-rays, and held their affiliations with other divisions of medicine, and I must admit I was myself one of this group. It was not until after the Roentgen Society of the United States held its first meeting, later changing its name to the Roentgen Society of America, and still later to the American Roentgen Ray Society, and its members were

designated Roentgenologists that the onus was completely lifted.

These are only some of the facets of medical organization when radiology, as we know it today, was at the starting point. The local as well as the national electrotherapeutics bodies became loud and vehement in their claims upon the new science, and hastily included it in their teaching programs. Slowly, but with equal firmness of purpose, a group from the ranks of medical practice began to devote their main activities to x-rays, eliminating all relationship to electrotherapeutic procedures.

When the call went out to form a national society of Roentgenology, composed only of medical graduates who devoted a large share of their work to x-rays, there arose a strong feeling of competition and strife which exploded, so to speak, when the first national Roentgen Society was formed in the year 1900, in St. Louis, Missouri. After a few annual meetings of the national organization, the ideals of its membership became unified and organizations of Roentgenology and Radiology became stabilized and have served a most useful purpose in advancing science.

In Chicagoland through the years before 1913, there appeared a small group of physicians who were devoting much of their medical activities to x-ray procedures in diagnosis and Roentgen therapy. This little clique would assemble voluntarily at the call of one of their colleagues in a sort of club fashion, usually at one of the offices or in a hospital, and subjects bearing on improved equipment and technique with sometimes a discussion of fundamental knowledge and therapeutic achievement would be presented for discussion by one of the members. Invitations were extended to interested physicians in other cities, for example, Grand Rapids, Detroit, Kalamazoo, St. Louis, Cedar Rapids, Milwaukee, Springfield, and other cities. Occasionally the Chicago group would respond to invitations to other cities. Then came the founding of the Chicago Roentgen Society, its affiliation with organized medicine, and its influence in advancing the science and maintenance of ethical practice of radiology can scarcely be overestimated.

In retrospect one can see the genetic unfolding of ideals in a small group of men who as physicians were dedicated to medical prac-

tice and whose careers were spanning the early stages of radiological development to become its leaders during its transition from a simple crude beginning to the highly complicated perfection of the present day.

Their ideals were being crystallized for the sole purpose of elevating standards of diagnosis and treatment of the sick and injured patient. They were also conscious of the necessity for uniting their efforts to accelerate advances in education concerning useful procedures and their integration into sound and ethical medical practice.

Under this leadership the Chicago Roentgen Society was formed. The group was not large, and their names would be familiar indeed to almost all of you, Potter, Case, Hubeny, Hartung, Trostler, and Turcly is to name but a few.

The contributions of this society in establishing sound and ethical principles in Radiological practice, the dissemination of knowledge in diagnostic and therapeutic procedures,

the education of students of Radiology in its many divisions, constitute the fulfillment of but a few of the ideals so deeply cherished and shared in the mind and spirit of the founders.

These and numerous other contributions are continuously being implemented and maintained on a high level of ethics and proficiency.

We are all justly proud of the record it has established. From the beginning its officers have been enthusiastic, industrious, farsighted, honest and sincere.

Committees have undertaken the duties stipulated in their appointments, and have supported the officers by presenting suggestions and plans for important functions, thereby enhancing the productivity of their administration.

It is indeed just and proper that we pause now and join in celebrating the "Golden Jubilee" anniversary of this splendid society. May the Founders Ideals continue through many anniversaries. May radiological research produce future Roentgens.

The View Box

— diagnosis and discussion

(continued from page 528)

Diagnosis: Toxic dilation of colon resulting from ulcerative colitis with perforation.

The marked anatomic changes of distention and shortening of the colon, irregular thickening of the bowel wall, nodular mucosal elevation, and intervening thinning or ulceration may produce on the plain abdominal film an appearance diagnostic of fulminating ulcerative colitis.

In the supine film (#1) the transverse colon is markedly dilated with loss of haustral markings. Nodular densities are seen on both sides of the lumbar spine in the gas-distended colon, due to pseudopolyp formation. The lateral de-

cubitus film (#2) reveals free air along the upper lateral abdomen, indicating perforation. The nodular densities are again well outlined in the colon.

This radiological appearance is an ominous prognostic sign in patients with known ulcerative colitis and may be the first indication in a previously unsuspected case.

REFERENCE

1. McConnell, Fleming, Hanelin, Joseph, and Robbins, Lawrence: Plain Film Diagnosis of Fulminating Ulcerative Colitis. *Radiology* 71:674-682, November 1958.

Lessons Learned from Perinatal Death Studies

MATTHEW J. BULFIN, M.D., *Evergreen Park*

The Joint Commission on Accreditation of Hospitals advocates perinatal mortality committees in all hospitals with maternity services. It does not insist, however, upon such committees and many hospitals accredited and unaccredited lack them.

"The establishment of a conscientious perinatal mortality committee in every hospital in which babies are born could save both babies' lives and enhance public confidence in the American hospital system." The above quotation is Dr. Robert A. Kimbrough's, the medical director of the American College of Obstetricians and Gynecologists.

The Suburban Cook County Committee on Maternal and Infant Welfare was founded in 1955 with the encouragement and guidance of Dr. Fred Falls and Dr. William Hanrahan. Its purpose as stated in its constitution was to attain for the Suburban Cook County area the highest possible standard of obstetrical and neonatal care. Among its specifically stated purposes were:

1. To define standards of obstetrical and neonatal care which will be applicable to all hospitals in suburban Cook County.
2. To promote accurate and prompt completion of birth and perinatal death certificates.
3. To conduct surveys of maternal and perinatal deaths, and to study the preventability of same.
4. To disseminate information regarding the aforementioned surveys to each hospital in suburban Cook County.

Chairman, Suburban Cook County Maternal and Infant Welfare Committee.

Presented at the 123rd Annual Meeting, Illinois State Medical Society, May, 1963.

5. To gain the cooperation and approval of all physicians concerned with obstetrical and neonatal care (obstetricians, pediatricians and general practitioners) in order that they understand and aid this movement. The committee is not designed for purpose of censure or punitive action.

During the initial year of operation, 1955, there were 13 member hospitals in our committee with about 26,000 deliveries annually. In current year of study, 1962, we have 18 hospitals and 35,000 deliveries annually. During the eight years that our committee has functioned there have been over 200,000 deliveries at our represented hospitals.

Table 1 gives an example of how the committee functions. Showing the scope of statistical material for our current year of study (1962).

Table 1

Hospital	Number of Deliveries	Perinatal Death Rate	Section Rate
1. Little Company of Mary	5,284	3.1%	3.1%
2. Christ Community	3,011	2.3%	3.1%
3. Mac Neal Memorial	2,739	2.7%	3.3%
4. St. James	2,604	3.2%	2.7%
5. St. Francis, Evanston	2,526	3.3%	3.3%
6. Ingalls	2,458	3.4%	4.3%
7. West Suburban	2,409	2.8%	6.0%
8. Lutheran General	2,290	2.5%	3.7%
9. Evanston	2,139	1.3%	5.0%
10. Holy Family	1,962	2.8%	2.8%
11. Northwest Community	1,752	2.5%	4.1%
12. St. Francis, Blue Island	1,692	2.7%	3.9%
13. Oak Park	1,562	2.4%	3.3%
14. Community, La Grange	1,281	2.2%	5.0%
15. Gottlieb	845	2.0%	5.2%
16. Westlake	715	2.7%	4.8%
17. Hazelcrest	319	5.3%	4.3%
18. Community, Evanston	154	4.1%	4.5%

It was of interest to note the range of rates among hospital for Cesarean sections and perinatal deaths. The average Cesarean section rate was 3.9% (high 6%—low 2.7%). The average perinatal death rate was 2.6% with a high of 3.4% and a low of 1.3%.

Table 2 1962 Total Eighteen Suburban Cook County Hospitals		
Total Infants Born	35,063	
South	15,358	
North	10,154	
West	9,551	
Total Perinatal Deaths	929	
South	467	
North	250	
West	252	
	Perinatal Death Rate 2.6%	
Total Cesarean Sections	1,349	
South	521	
North	395	
West	433	
	Cesarean Section Rate 3.9%	

This is of interest in that it shows the total number of Cesarean sections and perinatal mortality according to regional distribution. Of the 18 hospitals in our group, the geographic arrangement is such that there are six north hospitals, six west, and six south area hospitals. This has enabled the Suburban Cook County Committee to hold three regional meetings a year devoted to discussion of problems arising in these six hospitals within the one area.

Since we are now entering an era of preventive obstetrics which concerns itself with the factors that reduce perinatal mortality and morbidity, we should make every effort to improve our fetal salvage by all means that are available to us.

In our group of hospitals each perinatal death is of course first studied by the local hospital committee at which each death occurs. If the hospital committee deems the death to have been completely non-avoidable, as are most perinatal deaths, there is no further discussion or evaluation of the case. If, however, the hospital committee feels that there may have been some shortcoming in obstetrical or pediatric management, or some possible error in judgment, then the case is further discussed. Our criteria for preventability have been based upon the ideal obstetrical and pediatric management.

Although it is obvious to us all that the ideal may never be attained, it is nevertheless necessary to have the ideal as our objective if improvement is to be made. With this in mind, the conclusions reached by the committee are then offered as opinions and recommendations at the hospital departmental meetings in an effort to improve the quality of care. The cases of greatest interest and teaching value at each hospital are then usually presented in a completely anonymous manner to the 18 hospital committee at its annual meeting.

The following are brief summaries of actual cases in which a perinatal death occurred. Of the 445 deaths reviewed in 1962, 44 were discussed at the various perinatal review meetings as to possible factors of preventability. These three summary reports are examples of such cases. Probably no comment is necessary on any of these.

Case 1

The cervix of a 19-year-old para 1, gravida 2, at term was dilated 4-5 cm. at -1 station. The membranes were ruptured artificially in the labor room. The cord prolapsed out of the vagina, and the attempt to replace it was not successful. Cesarean section yielded a 6 lb. 7 oz. baby in poor condition that died the following day.

Case 2

A 27-year-old primipara at term was delivered of a 9 lb. infant by breech extraction after a 32 hour labor. Forceps were used for the aftercoming head. The infant died 22 hours after delivery. Autopsy revealed tentorial tears and cerebral hemorrhage.

Case 3

A 36-year-old para 2, gravida 3, entered the hospital in premature labor at 34 weeks. She received 100 mg. of Demerol® and 25 mg. of Thorazine®. After a 3 hour labor, general anesthesia was given for delivery. The infant weighed 4 lb., 7 oz. and was slow to respond; death occurred 18 hours later. Autopsy revealed hyaline-membrane.

Table III tabulates the total number of perinatal deaths at all 18 hospitals during the year 1962. In an effort to be realistic and practical as to cause of death, we have focused attention only to those deaths in which the weight at birth was more than four pounds. There were 445 deaths in this category, or about 45 per cent of the total perinatal loss. These deaths have been classified according to the

following categories as diagnosed at the local hospital level.

Table 3
1962—Total Perinatal Deaths—929
Deaths in Fetuses and Infants Over Four Pounds—445

Cause of Death	Number of Cases
1. Congenital defects	74
2. Abruptios and previas	61
3. Cord accidents	60
4. Antepartum death—no known cause	57
5. Erythroblastosis	43
6. Neonatal atelectasis	25
7. Toxemia	24
8. Hyaline membrane	20
9. Fetal distress intra partum deaths	18
10. Diabetes	11
11. Congenital pneumonia	10
12. Postmaturity	9
13. Trauma at delivery	8
14. Analgesia and anesthesia factors	7
15. Breech difficulty	5
16. Amnionitis	4
17. Hepatitis	4
18. Ruptured uterus	3
19. Shoulder dystocia	1
20. A B O incompatibility	1

From the study of our collective experiences at these 18 Suburban Cook County obstetrical services where more than 200,000 births have been surveyed, several valuable points of information stand out. We have learned that the following classification of cases holds the greatest promise for the reduction of perinatal deaths. We can expect the greatest rewards in perinatal salvage by focusing on these particular cases in all our studies:

Prematurity

Although most deaths associated with prematurity are certainly non avoidable, there is a definite group of infants whose premature births could possibly have been forestalled by better judgment and diagnostic acumen. Among these cases are:

- a. Patients with premature rupture of the membranes at 36, 37 weeks, not in labor, who are given intravenous pitocin to induce it.
- b. Patients in whom Cesarean section is done electively too early.
- c. Patients delivered by Cesarean section

because of mild vaginal bleeding at 7½ or 8 months who might have been managed conservatively.

d. The occasional patient with undiagnosed twins who is induced.

Intra Partum Deaths

A considerable number of infants are lost each year because the fetal heart tones are not checked frequently enough, especially during the second stage of labor. Accidents of the cord are responsible for many of these cases and prompt diagnosis of these conditions is essential for optimal fetal salvage. If intra partum deaths are to be prevented, fetal heart tones must be checked frequently. Checking heart tones at five to ten minute intervals on all women in labor is indeed a formidable assignment for most understaffed maternity units, yet the rewards in fetal salvage are undoubtedly great. A system of monitoring the fetal heart tones of patients in labor has been installed at St. James Hospital in Chicago Heights, one of our member institutions. Dr. Robert Branch, the anesthesiologist, along with Dr. Dale Collins, the department chairman, are currently working on the project and we hope to have a report from them in the near future. This system of monitoring fetal heart tones could prove to be a tremendous stride toward the reduction of fetal deaths through unrecognized intra-partum distress.

Breech Presentations

The abnormally high fetal loss associated with breech delivery emphasizes the importance of careful evaluation of the size of the fetus and the progress of labor. The excessively large fetus, prolonged labor in the primipara, and desultory labor stimulated with pitocin have all been responsible for raising our fetal loss. Cesarean section in these instances would probably have yielded a much better fetal result.

Erythroblastosis

In the management of the Rh negative patient with an Rh positive husband, the obstetrician must make certain that complete laboratory

data are carefully maintained and recorded on the patient's pre-natal record. The fact that such a patient has delivered three or four uninvolved normal infants does not guarantee that she won't deliver an erythroblastotic infant with a subsequent pregnancy. There have been four or five such instances in the past year at our hospitals. The obstetrician must not rely completely on the previously negative obstetrical history.

Postmaturity

Recognition of postmaturity as a potential problem in the elderly primigravida, the chronic hypertensive, and the toxemic patient will make us more alert for the signs of fetal distress. Every effort should be made to eliminate hypoxic influences on the post-mature fetus. We have had too many antepartum fetal deaths at 44 or 45 weeks gestation to regard post-maturity as merely an academic problem.

Hyaline Membrane Disease

Hyaline membrane disease was responsible for a relatively high percentage of perinatal deaths in our series. Almost all such deaths occurred within the first seventy-two hours

after birth. Although there has been no universally successful therapy for hyaline membrane disease, a recent method of treatment by one of the pediatricians on our committee appears to hold some promise in decreasing perinatal mortality. Dr. Eugene Diamond has employed Chlorpromazine in the management of infants with the clinical picture of hyaline membrane disease, and has noted a decrease in mortality from 80% to 20% in his series of cases. (See page 538)

Congenital Anomalies

It is important to consider the possibility of internal congenital anomalies causing fetal distress after birth. Diaphragmatic hernias have been occasionally misdiagnosed as congenital hearts or atelectases and surgical treatment has been unduly delayed.

The lessons that we have learned from these suburban Cook County hospital studies have been most rewarding. Since our hospital group represents but a small segment of the total number of hospitals in the State of Illinois, it would be well to consider what benefits might be derived for all concerned were studies such as these to be carried out on a state wide level.

Share Your Medical Journals

The doctors of the U.S.A. are being asked to send their medical journals—*after they have read them*—to colleagues overseas (Asia, Latin America, and Africa) who wish to have access to current medical literature but, either because of currency regulations or actual cost involved, cannot themselves subscribe to medical periodicals.

This is a direct "Doctor-to-Doctor" program which is being promoted by the United States Committee of The World Medical Association to help alleviate the lack of current medical publications and to further international good will. Your cooperation in this program will be greatly appreciated. If you wish to participate in this program, send your name, address, and titles of journals you will contribute to United States Committee, The World Medical Association, 10 Columbus Circle, New York 19, New York.

A Preliminary Report

Treatment of the Neonatal Idiopathic Respiratory Distress Syndrome with Chlorpromazine

EUGENE F. DIAMOND, M.D.* and VERNON R. DEYOUNG, M.D.**, Chicago

A specific therapeutic approach to the problem of the neonatal idiopathic distress syndrome (hyaline membrane disease) is not at present available. Most likely it will await a basic understanding of the etiology of the disease. In the meantime clinicians confronted with the problem have to make intelligent trials at therapy. This communication is an account of such a trial.

It is to be emphasized that this is a preliminary report. Its purpose is to offer it for more widespread trial, thereby allowing further evaluation of its worth.

The use of this therapy in our hands seemed to improve the prognosis of the disease. In arriving at the conclusion we recognize two pitfalls. First, is the difficulty of accurate diagnosis in the infants who survive. Second, that the survival of untreated infants is possible, but that the mortality rate of this disease is yet to be determined. Evaluation of any treatment of the syndrome must be tempered by these two facts.

Equating the clinical picture of the neonatal idiopathic respiratory distress syndrome with a diagnosis of pulmonary hyaline membrane

has gradually reached an acceptable status. This came about as a result of the refinement of the observations of two clinical features of the syndrome and their close correlation with autopsy findings. They are first, the thoracic retractions, and second, the pulmonary roentgenogram. Due to the introduction of "retraction scoring" by Silverman and Andersen¹ a convenient method of quantitating this visible manifestation became possible. Then the studies of Nadelhaft and his co-workers^{2,3} brought a measure of quantitation to the pulmonary roentgenogram. The association of these two clinical features became highly significant when statistically analysed with autopsy findings in which hyaline membranes were present.³

Clinical Material

Twenty-five newly born infants who presented the combination of clinical signs referred to in the recent literature as the neonatal idiopathic respiratory distress syndrome comprise the clinical material. The criteria for using cases as part of this report were first, autopsy findings of hyaline membranes; second, a retraction score of at least 8, a score chosen because it was the lowest score found in the autopsied group; and third, pulmonary roentgenograms demonstrating increased reticulogranularity of Class II to Class IV according to the classification of Nadelhaft and Ellis². Cases in which autopsy findings included bronchopneumonia were eliminated from this series. Additional data on the clinical material are contained in Table I.

*Associate Clinical Professor, Department of Pediatrics, Stritch School of Medicine, Loyola University.

**Assistant Professor of Clinical Pediatrics, University of Illinois.

***Presented before the American Pediatric Society, May 10, 1962 at Atlantic City, New Jersey and before the International Congress of Pediatrics; September 12, 1962 at Lisbon, Portugal.

Comparison of Controls and Treated Cases

Name	Birth Date	Age at Death	Gesta-tion	Wt. gms	Resp. Rate	Ret. Score	Chest X-Ray	Obst. Abnorm.	Digi-talis	Cya-nosis
D. F.	5/ 7/57		40 wks	3749	140/min	8	IV	Mcc. stained amniotic fluid	No	Yes
C. T.	10/21/57		40 wks	4656	100/min	8	IV	Mat. diabetes	Yes	Yes
C. W.	10/ 9/58		39 wks	2872	140/min	10	II	C. Section	No	No
C. Q.	12/ 9/57		40 wks	4112	80/min	10	IV	C. Section	No	No
D. C.	9/22/59		40 wks	3445	168/min	8	IV	Placenta Previa	Yes	Yes
M. S.	5/10/60		37 wks	2662	110/min	10	IV	C. Section	Yes	No
C. C.	12/ 2/58		40 wks	3295	88/min	8	III	Maternal Diabetes	No	No
C. K.	2/ 6/61		40 wks	3055	100/min	10	IV	C. Section	No	Yes
T. D.	10/ 8/60		38 wks	2329	110/min	8	IV	C. Section	No	No
O. C.	2/ 7/60	8 hrs	33 wks	1419	140/min	10	IV	None	No	Yes
L. M.	3/ 8/58		38 wks	2782	100/min	10	III	C. Section	Yes	No
W. F.	4/24/60		35 wks	2239	112/min	10	IV	C. Section	No	Yes
P. C.	1/ 5/61	12 hrs	33 wks	1840	140/min	10	IV	Abruption Placenta	No	Yes
N. C.	5/25/61		32 wks	1620	120/min	8	III	Prolong Labor	No	No
Z. T.	6/30/61		35 wks	1950	128/min	10	IV	Maternal Diabetes	No	No

Controls

Name	Birth Date	Age at Death	Gesta-tion	Wt. gms	Resp. Rate	Ret. Score	Chest X-Ray	Obst. Abnorm.	Digi-talis	Cya-nosis
T. S.	4/14/57	16 hrs	34 wks	2112	100/min	10	IV	Breech	No	Yes
D. K.	6/17/57	15 hrs	36 wks	2509	120/min	8	IV	Maternal Diabetes	No	Yes
M. B.	10/ 1/57	48 hrs	34 wks	1992	100/min	8	IV	Prem. Rupt. Membrane	No	No
B. D.	11/29/57	48 hrs	40 wks	2752	100/min	10	III	C. Section	No	Yes
S. T.	1/ 5/58	10 hrs	40 wks	2717	120/min	8	III	Stained Amniotic Fluid	No	No
C. S.	5/25/58	7½ hrs	34 wks	1782	80/min	10	II	Maternal Diabetes	No	Yes
J. C.	11/10/58		38 wks	3401	140/min	8	IV	None	Yes	Yes
W. D.	4/10/59	28 hrs	38 wks	2572	80/min	10	III	C. Section	No	No
J. A.	8/20/59		35 wks	2419	88/min	8	IV	Stained Amniotic Fluid	No	Yes
M. C.	1/ 7/60	27 hrs	33 wks	1539	80/min	8	III	Prolonged Labor	Yes	No

Patients were chosen for inclusion in the study at that hour of life in which their suspected respiratory distress syndrome was corroborated by a retraction score of 8 or above. Portable pulmonary roentgenograms were obtained for further verification at this time. During the first two years of the study, patients were entered into the study by alternation; however, during the third year of the study all cases diagnosed as the idiopathic neonatal respiratory distress syndrome have been given

the benefit of chlorpromazine therapy. The decision to treat all cases was based on our increasing confidence in the efficacy of the therapy. The average maternal ages in the treated and untreated groups were comparable and there were no obstetrical complications other than those listed in Table I. The chief discrepancies between the two groups were the slightly higher mean birthweight in the treated group and the large number of infants born by Caesarean section in the treated group⁷ as

compared with the control group². The indications for Caesarean section were previous section⁵ abruptio placental², placenta praevia¹ and dystocia¹.

Methods

All infants were treated with oxygen, water mists usually with a wetting agent (Alevaire[®]), and prophylactic antibiotics. Five infants were digitalized. In addition 12 of the infants were given chlorpromazine by way of nasogastric tube. The dose in every instance was 2 mgm. in the form of 1 ml. of Syrup of Thorazine[®] every hour. The chlorpromazine was continued until the retraction score of 0. In almost all instances such a retraction score was accompanied by a reduction of a tachypnea of 80 to 168 respirations per minute to 50 to 60 per minute, and all supportive measures could be discontinued. (See Table 1)

Results

Of the 10 patients treated with supportive measures only, there were 2 survivors a mortality of 8 of 10. Of the 15 patients treated with the supportive measures plus chlorpromazine there were 13 survivors, a mortality of 2 of 15. All dead infants were autopsied and pulmonary hyaline membranes were revealed.

Two additional cases were experienced that clinically fitted the picture of the idiopathic respiratory distress syndrome of the newborn, were treated with chlorpromazine, but died. Autopsies revealed bronchopneumonia in addition to hyaline membranes. For this reason they were not included in this series. For the same reason two control cases found to have bronchopneumonia in addition to hyaline membranes were eliminated from this series.

Discussion

Our use of chlorpromazine in the idiopathic respiratory distress syndrome represented an attempt to change the discouraging outcome of infants treated with the supportive measures described.

Stokes⁴ had reported the survival of a prema-

ture infant whose case description resembled that of the idiopathic respiratory distress syndrome. The survival followed the use of chlorpromazine. Furthermore, it had been reported that chlorpromazine prevented pulmonary injury in experimental animals exposed to oxygen at atmospheric pressure⁵ and at high pressure⁶ to the point of toxicity.

Stokes attributes the chlorpromazine effect to a lowering of body temperature. This in turn reduces oxygen need, allowing for survival until the hyaline membranes disappear. The infant treated by Stokes registered its lowest temperature at 95°F.

Of the survivors in this series of infants treated with chlorpromazine, only one exhibited a hypothermia of 94°F. The remainder registered temperatures from 97°F. to 99°F. Thus we question hypothermia or hibernation as the mode of action of chlorpromazine on these infants.

The observers^{5,6} using chlorpromazine on rats subjected to oxygen toxicity found that it reduced the incidence of fatal pulmonary edema. The protection is ascribed to a suppressive action on the hypothalamus with consequent inhibition of the adrenal cortex and medulla and of the sympathetic nervous outflow. A more recent similar experiment⁷ using chlorpromazine on mice exposed to oxygen toxicity failed to affect the mortality of incidence of pulmonary hyaline membrane formation.

We were impressed with the marked reduction in the respiratory rate and with it the disappearance of thoracic retraction following the administration of chlorpromazine (Table I). The infants became markedly flaccid, and there was loss of the Moro and suck reflexes in most cases. Possibly these observations represent the strong antiepinephrine action of chlorpromazine. The reduction of tachypnea and of thoracic retraction prevents physical exhaustion and thereby tides the infant over a critical period until the hyaline membranes are resorbed. We are inclined to agree with Cook and his co-workers⁸ who concluded that physical exhaustion due to increases in the work of respiration may be the determining factor in the death of infants with the idiopathic respiratory distress syndrome.

Summary and Conclusion

A study of twenty-five newly born infants who had in common the clinical picture of the idiopathic respiratory distress syndrome is submitted as a preliminary report of a type of therapy.

Ten of the series were treated with supportive measures only. There were two survivors. All autopsies (8) revealed hyaline membranes.

Fifteen of the series were treated with supportive measures and in addition were administered chlorpromazine according to a uniform schedule. There were thirteen survivors. The two autopsies revealed hyaline membranes.

In this small series of newly born infants afflicted with the idiopathic respiratory distress syndrome it appears that those administered chlorpromazine gained an improved prognosis. This observation leads to the conclusion that a further trial of this therapy is justified.

Acknowledgement

The authors gratefully acknowledge the assistance of Dr. John W. Koenig, who classified the roentgenograms. Also the help of Miss Janet Rothert of the Service in Medicine Program of Mead Johnson Laboratories.

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Ileal Perforation Without Demonstrable Cause

PAUL F. FOX, M.D., CHARLES E. PUGH, JR., M.D.,
AND ROBERT W. BABICK, M.D., *Chicago*

PERFORATIONS OF THE ILEUM are usually caused by either penetrating or blunt abdominal injuries. Less frequently they may follow penetration of the intestinal wall by an ingested foreign body. Other causes include pathologic alteration of the intestinal wall like those observed in typhoid fever, regional enteritis or primary ulceration.⁵

An account of two patients treated for perforations of the ileum is presented because no cause for the disorder could be demonstrated. No history of trauma could be obtained from either patient, no gross pathologic changes in the ileum could be seen and no foreign bodies were found in the peritoneal cavity.

Case 1

D. O., a white male, thirty-nine years of age was admitted to the hospital on January 18, 1957, at 3:40 p.m. One week prior to admission he noticed a brief period of cramping abdominal pain accompanied by several loose stools. No further symptoms were observed until the day prior to admission when he again had a few liquid stools. On the day of admission he complained of severe lower abdominal pain, cramping in character, located in both lower abdominal quadrants. Anorexia was present but no vomiting occurred. The severe pain was first noticed while riding in a bus to his place of employment. The pain became so marked that he returned to his home and called his doctor who sent him to the hospital.

Physical examination disclosed a well-developed white male in acute distress. His temperature was 97.6°F., pulse rate was 100 per minute and the blood pressure was 134/84.

From the Department of Surgery—St. Anne's Hospital.

The essential physical findings consisted of generalized abdominal tenderness and rebound tenderness. Peristaltic sounds were described as hypoactive. Neither rigidity nor distention were observed. The examiner's impression was that the findings were due to either acute appendicitis or gastro-enteritis.

Examination of the urine showed a faint trace of acetone. A blood count disclosed 4,760,000 erythrocytes, 15 grams of hemoglobin and 14,800 leucocytes. The differential count showed 76 segmented cells, nine lymphocytes, 11 monocytes, and four stab cells.

On the day following admission his abdominal findings had progressed significantly. There were marked generalized abdominal tenderness and rebound tenderness, generalized rigidity, and absent peristaltic sounds. The temperature had risen to 101°F. and the pulse rate was 140 per minute. The preoperative diagnosis was acute appendicitis with perforation and generalized peritonitis. Preparation for operation was carried out and at 11:00 a.m. on January 19, 1957, the operation was performed.

Operation

Because of the preoperative diagnosis, a McBurney incision was made. In the lower abdomen there was a large amount of greenish, foul-smelling exudate which contained food particles. The appendix was grossly normal. In the terminal ileum 15cm. proximal to the ileocecal juncture was a perforation one cm. in diameter. The perforation was near the mesenteric border and there was no gross evidence of any other pathological change in the wall of the ileum. The perforation was closed with several interrupted fine chromic catgut sutures in the mucosa and a row of interrupted fine black silk sutures in the seromuscular layer. A considerable amount of fluid was removed with the

aspirator and laparotomy sponges. Food particles were washed out with physiologic saline solution. Examination of the small intestine for further perforations was conducted but none were found. A Penrose drain was placed into the peritoneal cavity and the incision was then closed.

Postoperatively his course was relatively uncomplicated. During the postoperative period, repeated and detailed interrogation concerning trauma to the abdomen resulted in the patient's steadfast denial of any injury. He was discharged eleven days after admission and has remained in good health during the ensuing years.

Case 2

H. W., a white male, sixty-four years of age was admitted to the hospital emergency room on November 25, 1960, at 8:15 P.M. Immediately before admission the patient was bowling, and had completed one game. In the early part of the second game, while delivering the bowling ball, he was seized with a sudden, severe, lower abdominal pain which was located in the right lower quadrant. The pain became progressively worse after its onset. No vomiting occurred.

Past history disclosed that operations had been performed for appendicitis, cholecystitis, varicose veins, rectal fistula and prostatic hypertrophy.

On physical examination he was in definite distress from the abdominal pain. His temperature was 98.6°F., pulse rate 60 per minute and blood pressure 110/60.

The essential physical findings were limited to the abdomen. There was a well-healed, long right paramedian scar. Reducible bilateral inguinal hernias were present. Generalized abdominal tenderness, rebound tenderness and rigidity of the lower right rectus abdominus muscle were present. Peristaltic sounds were diminished in frequency and pitch.

A roentgenogram of the abdomen showed neither gaseous distention of the small intestine nor free air beneath the diaphragm.

Laboratory examination of the urine disclosed no abnormalities. The blood count revealed 10,950 leukocytes, 14.3 grams of hemoglobin and a hematocrit level of 42%. In the differential count, 68% segmented cells, 18% lymphocytes, 13% stab cells and one % eosinophils were seen.

The preoperative diagnosis was perforated abdominal viscera with acute diffuse peritonitis.

Operation

Four hours after admission the operation was performed. The abdominal cavity was entered through the lower half of the old right para-

median scar. There was a large amount of cloudy, yellowish fluid in the abdominal cavity and the serosal surfaces of the small intestine were reddened and had fibrin deposits on them. There was an area of ileum, 30 cm. proximal to the ileocolic juncture which was firmly attached to the undersurface of the old scar for a distance of about six cm. About 20 cm. proximal to this adherent segment was a small perforation six mm. in diameter on the anti-mesenteric surface of the ileum. No other changes except scattered adhesions were found on further exploration. The perforation was closed using interrupted fine chromic catgut sutures for the mucosa and interrupted fine silk sutures for the seromuscular layer. On dissection of the adherent loop from its attachment to the old scar a small opening was made in the intestinal wall which required closure. After the fluid content of the abdomen was aspirated as well as possible, the abdominal incision was closed without drainage. His post-operative course was satisfactory and he was discharged ten days after admission. He has remained in good health since that time.

Comment

The experimental aspects of perforations caused by nonpenetrating abdominal trauma have been adequately described by Geohegan and Brush.¹ The symptoms, clinical signs, and treatment are familiar to surgeons and have been stressed, particularly with reference to blunt abdominal trauma, in the publications of Hunt and Bowden² and Poer and Woliver.⁴

The principal purpose in describing the two patients cared for by us is to emphasize the absence of ordinary etiological factors. We cannot be sure that a foreign body did not penetrate the intestinal wall in these individuals. It seems likely, however, that if such an accident occurred, the foreign body could be identified. This is applicable, particularly, to the second patient in whom the incision was long and furnished wide exposure of the abdominal contents.

We were satisfied from the patients' histories and lack of any objective evidence of trauma that no injuries had taken place. Grossly, no evidence of intestinal disease was seen and the

long follow-up period in which each patient remained in good health seems to exclude disease as a causative factor.

Neither patient had been treated with cortisone which has been incriminated as a cause of intestinal perforation.³

Summary

1. Two patients treated for ileal perforations are described.
2. No demonstrable cause for the perforations in either patient was found.

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Concealed Weapon—TB

The apparently well people who harbor tubercle bacilli, of whom there is such a large number in this country, have lesions which may be likened to machine gun nests or land or sea mines. They have been accused of carrying concealed weapons. Every year some such persons are responsible for outbreaks of tuberculosis. It was they who contributed more than 50,000 new clinical cases last year and probably another 50,000 this year. Recently, for example, a senior high school student in Ohio became contagious of whom it was said "TB Pocket in Henry County Boosts Infection Rate Sky High." In Superior, Wisconsin a senior high school student became contagious and disseminated tubercle bacilli to classmates and others causing several to be hospitalized. In a large centralized school in upstate New York, a school bus driver developed contagious tuberculosis and apparently infected 30 per cent of the students whom he transported. In Whitehall, Michigan a student athlete developed contagious tuberculosis and seven active and 98 potential cases apparently resulted from exposure to him. In Edmonton, Canada a high school teacher with contagious tuberculosis evidently infected 90 students.

Unless tuberculin testing and routine chest radiography, the well known methods of avoiding such outbreaks, are resumed in places where they have been abandoned and instituted where they have not been employed, tuberculosis may be expected to result in one outbreak after another until it has resumed its former destructive status.

Excerpt from statement prepared by the Joint Committee on Chest X-ray of the American College of Radiology and the American College of Chest Physicians. Reprinted from "Diseases of the Chest," December, 1962.

Therapy of the Terminally Ill Patient

THADDEUS KOSTRUBALA, M.D., Chicago

Introduction

THE OBJECTIVES OF MEDICINE to prolong life and alleviate pain come into sharp focus when physicians are faced with the care of the terminally ill patient. Under the special circumstances where the physician feels that he may no longer accomplish his first objective, he must turn to the second. To alleviate the pain of the dying patient the physician has available a wide variety of medical and surgical techniques. Unfortunately, these do not always fully relieve the emotional distress of the patient. At this point they may seek psychiatric consultation to help ease this distress.

This paper will discuss the techniques employed by the psychiatrist to help three such patients.

Cases

Case 1

A 49-year-old white, male laborer had the established diagnosis, by biopsy, of squamous cell carcinoma of the lung with mediastinal involvement. He had been treated on the Surgical Unit and received radiotherapy. After completion of his course of radiotherapy, he was discharged, but readmitted a month later in a state of extreme emaciation.

Metastatic spread of the neoplasm had caused obstruction of the distal third of the esophagus. Prior to his first discharge, he was told the nature of his illness and advised to consult a lawyer to "straighten out his affairs." The rapid progress of his illness, his inability to eat, emaciation and generalized weakness led him to believe that he was terminal. After his second admission, it was felt that he could not be helped by any known means of surgery, chemotherapy or irradiation.

Clinical Director, Mental Health Service, Mary Thompson Hospital, Chicago.

He was not informed of this, but was placed on a liquid diet, analgesics and sedatives. After two weeks on the Surgical Ward, a nurse overheard the patient remark that he was "going to die."

Fearing a suicidal attempt, a psychiatric consultation was requested. This revealed a terminally-ill appearing adult, white male, who was overtly depressed and contemplated suicide. He felt that his illness was terminal and also felt that he was "left here to die." He had "read up on cancer" and "knew it was what killed people."

Prior to his illness, he had led a relatively stable and productive life. He had a harmonious childhood, marriage and work record. He was not overtly religious, but had been raised as a Protestant. The patient felt that "since the doctors have given up on me, I'm going to give up, too."

An immediate consultation with his ward physician was arranged by the psychiatrist. The ward physician was unaware of the patient's extreme despair and both the physician and psychiatrist entered upon a program to alleviate the patient's depression.

The physician visited the patient for approximately 30 minutes with the expressed intent of answering whatever questions the patient might have concerning his illness. The physician answered all of the questions but specifically avoided predicting the death of the patient from his carcinoma. When asked by the patient: "Will I die from this cancer?" The physician stated that he was not in possession of the ability to predict such events. The patient then asked if anyone had ever recovered from cancer and the physician answered that he had read of, and had heard of, complete remissions of "cancer." The patient was told that his medication was to help him and the very best medical treatment was being given to him.

The nurses were instructed to attempt to abandon the feeling that the patient was just there to die—and that as far as anyone knew a remission could occur and that they should be on the lookout for early signs of increased strength, appetite, etc.

Within two days the patient's "depression" had alleviated. He no longer felt abandoned. His wife and children noticed the improvement in his mood and there was no longer any discussion of suicide. The apprehension of the nursing personnel was relieved as they, too, no longer felt the patient was suicidal.

The patient remained in a mildly hopeful and equanimitous mood until he died 14 days later.

Discussion

Although the "facts" of "cancer" and his apparent symptoms were well-known to the patient, the simple expedient of caring for the patient and allowing the increase of hope helped alleviate his depression. Thus, the physician helped alleviate pain when he could no longer prolong life. His approach was discussed with the consulting psychiatrist.

Case 2

A 32-year-old white, male physician had established diagnosis of metastatic melanoma. He was fully aware of his diagnosis and was active and inquisitive about his illness and his therapy. It was apparent to his physicians that he was terminal, but they noted his continued good spirits and quiet cheerfulness. A psychiatrist colleague tactfully discussed his illness with him and found that the patient was in possession of a series of "facts" which sustained his outlook. They were: 1) there have been rare, but complete remissions of metastatic melanoma, 2) that all illness could be statistically distributed on a "bell curve" and that meant, to the patient, that he could well be skewed far to one side and could live a relatively normal span of years. With each new day he chose to feel that again he had further "proof" that his melanoma was not the usual case, 3) he put little importance on his rapid weight loss, emaciation and weakness.

Fortunately, none of the patient's colleagues attempted to disabuse him of his concept of his case of melanoma and he remained cheerful until his death.

Discussion

An intellectually supported defense was not attacked. This allowed the patient to maintain what might be called a scientific delusion. He, therefore, could continually sustain his belief in a normal life span.

Case 3

A 62-year-old white, married male had far advanced metastatic carcinoma of the colon. There were numerous skeletal metastases. He had been informed of his diagnosis two years prior to this admission. He then consulted approximately 15 physicians only to leave when he felt they had told him "nothing could be done." He had been hospitalized for brief periods of time in this same interval, and his behavior placed a severe financial and emotional strain on his family. Shortly after his admission, psychiatric consultation was

obtained and the following information was obtained:

1. In spite of considerable pain, weakness, fatigue, etc., the patient never attributed any of these to his "cancer." If he was told that his pain was due to metastatic disease, he emphatically denied this and sought other causes such as "arthritis," a "cold," etc.

2. He consistently referred to his "cancer" in a parenthetic manner. If the examiner did not ask him directly about his malignancy, it would not have been mentioned by the patient.

3. He was angry at the attitude of physicians whom he had contacted and left. He felt that none of them knew enough to treat his "arthritis" and other innumerable disabling, but not fatal, diseases.

The physician and psychiatrist, working in unison, agreed that this patient's view of his illness should be taken at face value and not challenged. Soon a pattern emerged. Each day the patient would have a new "pain," which he presented to his physician. The physician would express mild concern, look at and touch the affected area, and concur with the patient's diagnosis. The patient never mentioned his metastatic disease and the physician never brought this into focus. However, through the medium of his other "diseases" the patient was able to communicate his discomfort and pain and appropriate analgesics were prescribed.

He was discharged home only to return two months later and while being kindly treated for his "arthritis" by an understanding physician he quietly died.

Discussion

This patient again manifested, to our eyes, a curiously distorted view of his illness. The physician by accepting the patient's view in his contact with the patient considerably alleviated his patient's personal distress and the strain on his family's economic resources.

Theory

Freud postulated, after World War I and when faced with pain of his prolonged carcinoma of the mandible which eventually caused his death in 1939, the concept of "Thanatos," or the "death instinct."^{1,2} He felt that this was a function of the Id and was in direct contrast with the constructive force, Eros. This, then, helped him account for sadism, masochism and death. In his attempt to understand fully the nature of man and to account for many of the phenomena he observed in others and in himself, he stressed the Thanatos-Eros conflict in his later writings.^{3,4} Clinically, however, this concept may well lead the physician astray. Since his death other investigators⁵ have evolved a much more

lucid and clinically a more effective theory concerning the nature of "masochism" and "death."⁶

In outline this theory is as follows:

1. Death has never been specifically experienced by an individual—and is, therefore, not conceivable. Many euphemisms cover our lack of knowledge and attempt to allow us to gain some understanding of this event—e.g., "Rest in Peace," "Final Resting Place," all referring to sleep, from which all of us have awakened. The majority of our religious beliefs support this concept with either a specific or implied existence after "death." This is often made an article of belief as in the Nicene Creed.

2. The severe seeming deviance or seeking after "death" or "destruction" can only be understood in terms of the specific individual's dynamics. This may be based on multiple factors and the simple formula of Thanatos-Eros conflict only serves to becloud the issue, and can prevent effective therapy.

Thus, cultural factors may play a prominent role as in the Kamikaze pilot of World War II, who sought eternal life in terms of his own culture, but who was considered abnormal by his enemies. Individual dynamics are protean and it is the duty of the psychiatrist to investigate each patient without previous bias to attempt to help solve that patient's specific conflicts.

Methods

Several principles emerged from the above cases:

1. The physician and psychiatrist refrained from making a specific prediction as to the death of the patient.

2. Hope was sustained in the patient even when it seemed that the patient could not avoid the conclusion that he was terminal.

3. A particular form of anosagnosia seems to be operant in these cases, which prevents the total acceptance of a terminal illness.

4. It is felt that the concept of "Thanatos" or "death wish" is misleading. Rather, the clear

principle of survival of the organism and the inability of a human being to actually conceive of death are natural forces which aid the physician in his treatment of the terminally-ill patient.

Results

Three patients who experienced considerable discomfort during a terminal illness were relieved of much of their distress by the adoption of a specific attitude towards the patient and his illness by his physicians. Cooperation between the patient's physician and the psychiatrist led to a deeper appreciation of the meaning of hope to the terminal patient. Nursing care was easier and relatives were relieved of much distress.

Summary

The psychiatrist can be called into consultation by other physicians when faced with the dying patient. Often a misinterpretation of the so-called "death instinct" or "Thanatos" may becloud the picture and prevent the physician from alleviating the emotional discomfort experienced by the dying patient.⁷ Psychiatrists and physicians will ease the suffering of the terminally-ill patient if they judiciously refrain from predicting a specific outcome of a patient's illness, even if this outcome seems hopeless. They will also perform an invaluable service by keeping hope alive until the patient is actually dead. Three illustrative cases were presented to illustrate some of the techniques that may be employed to help alleviate the emotional distress of the terminal patient.

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Keogh Retirement Programs

Since adoption of a resolution by the 1961 House of Delegates directing the preparation of a tax deductible retirement program, the Medical Economics Committee has pursued the matter continuously on assignment from the Board of Trustees. Two principle approaches to equitable tax treatment for physicians are under study. Neither currently offers a clear pathway through the maze of government red tape leading to approval of the tax deduction. These are: (1) the professional association or medical corporation route, and (2) the Keogh plan route. Although the way has been cleared for the former to operate legally in Illinois, Internal Revenue Service approval of the retirement plans in connection therewith remains to be clarified. (Further information on medical corporations will appear in a later issue of the Journal.)

The so-called Keogh plans are based upon enactment by Congress of the Self-Employed Individuals Tax Retirement Act of 1962 (HR-10). Details of this Act are widely known through many articles appearing in the news media. (A booklet with full details of the law is available upon request to the Illinois State Medical Society, 360 North Michigan Avenue, Chicago 1, Illinois). Briefly, the law permits retirement plan contributions up to 10% of the net practice income to a maximum of \$2,500 annually, one-half of which is tax deductible. Fully vested contributions must be made on behalf of all full-time employees employed three or more years. The law initially applies to taxable 1963. To substantiate the tax deduction, a physician must qualify a *written retirement plan* in accordance with specified requirements set forth by Internal Revenue Service Regulations. Various funding mechanisms are

authorized, although the proper steps to approval for most types are extremely unclear at the present time. Failure to comply with the regulations may result in tax penalties.

Any individual *written plan* which fulfills the requirements of the law *may* receive IRS approval. However, it is contemplated that most plans will conform to a standard pattern developed on a group basis by one of the funding media, a professional association or utilize special retirement bonds issued by the Treasury in conjunction with the law. To facilitate this, the regulations provide for approval of master or prototype plans. While an advance determination letter is not a requirement for participation in any of these plans, such approval is desirable and may be obtained by the individual physician by submitting Treasury Form 3673 to the *District Director's office* where taxes are paid. (*Note:* The detailed IRS regulations are of little value except to those familiar with the tax laws. Physicians should depend upon expert tax advice in developing individual plans. Approved master or prototype plans will carry a *serial number* and *approval date*).

The Medical Economics Committee has under active consideration several types of Retirement-Investment programs, involving both fixed annuities and variable stock funds on an elective basis. It is the intent of the Committee to request Society sponsorship of such a plan sometime in 1964. It is contemplated that such a plan will be offered both as a systematic savings program irrespective of tax advantages and as a qualified plan for those who desire to gain a tax advantage. Failure of the government to fully clarify Keogh regulations by this late date, makes it unwise to finalize a plan for 1963. Physicians who wish to take advan-

tage of a tax deduction in 1963 might consider a Bond Plan utilizing the special Treasury Retirement Bond. These bonds are available through Federal Reserve Banks and possibly other sources. The following pertinent information is taken from a Treasury Department Announcement:

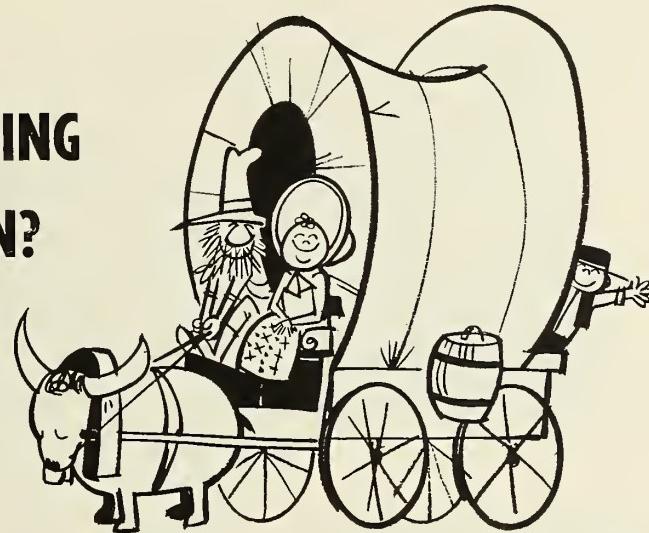
"The bonds will be sold at par in denominations of \$50, \$100, \$500, and \$1,000, and will provide an investment yield of 3½ per cent a year, compounded semi-annually. Interest, together with the principal, will be paid only upon redemption. The bonds will increase in redemption value at the end of each half-year period following their issue date. In accordance with the law and regulations . . . the bonds cannot be redeemed

until their owners reach 59½ years of age, except upon the owner's death or disability. Interest on the bonds stops five years after the death of the person in whose name it is registered."

The procedure for qualifying a bond plan is relatively simple. Advance determination and qualification of the plan may be secured by completing sections I and III of the aforementioned Treasury Form 3673. Further details on the Bond Purchase Plan may be secured by writing the Federal Reserve Bank of Chicago, P.O. Box 834, Chicago 90, Illinois.

I. E. Bartlett, M.D.
Chairman, Medical Economics Committee

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ISMS Honors Illinois Chamber

Interprofessional cooperation and understanding was furthered recently as the Illinois State Medical Society played host at a reception for members of the Illinois Chamber of Commerce during their Chicago meeting.

Among the guests of honor were Mr. and Mrs. Ray Dickerson, president and first lady of the Chamber and Mr. Sam E. Dean, incoming president.

International guests were Dr. and Mrs. R. V. Sathe, Indian delegates to the AMA Conference on International Health. Mrs. Sathe, also an M.D., had been a guest of the ISMS Auxiliary at a district meeting several days prior to the reception.



HONORED GUESTS were Dr. and Mrs. R. V. Sathe, Indian delegates to the AMA Conference on International Health, and Mr. Ray C. Dickerson (second from right) president of the Illinois Chamber.



ISMS RECEIVING LINE for the reception in honor of the Illinois Chamber of Commerce includes Dr. Harlan English, Danville, president, Mrs. English, Dr. J. Ernest Breed, Chicago, Trustee, Mrs. Breed and Dr. Fred C. Endres, Peoria Heights, Trustee.

Dr. Harry S. Gear, Secretary-General of the World Medical Association, also was among the guests greeted by the ISMS receiving line including President Dr. and Mrs. Harlan English; Dr. and Mrs. J. Ernest Breed, Chicago, Trustee, and Dr. and Mrs. Fred C. Endres, Peoria Heights, Trustee, Mrs. Matthew Uznanski, president, ISMS Auxiliary, acted as hostess.



DISTINGUISHED VISITORS included (first row) Mrs. Sathe, Mrs. Gerald D. Dorman, wife of the Secretary-Treasurer of the United States Committee, World Medical Association; Mrs. F. J. Blasingame, wife of the AMA Executive Vice President; Mrs. Harry S. Gear; and (second row) Dr. Harry S. Gear, Secretary-General of the World Medical Association; Dr. George Callahan, Waukegan, member of the U.S. Committee, World Medical Association and Dr. Sathe, immediate past president of the World Medical Association.

County Societies Host Inter-Professional Meetings

Two county medical societies have taken steps toward increasing interprofessional cooperation. The Knox County Medical Society and the Western Illinois Pharmaceutical Association recently sponsored a joint meeting. The groups advocated the establishment of liaison committees to work for the detection of diseases and their possible eradication. The Sabin on Sunday Program and Diabetes Detection Week were singled out as outstanding cooperative efforts put forth by the two associations.

A special panel discussion on health promotion programs featured Dr. Victor M. Dorris,

president of the Knox County Medical Society; William P. Taggart, president of the Western Illinois Pharmaceutical Association; Richard S. Strommen, executive director of the Illinois Pharmaceutical Association and Robert L. Richards, executive administrator of ISMS.

The Lake County Medical Society hosted an Interprofessional Night, Nov. 12 in Zion. Physicians, veterinarians, dentists, attorneys, pharmacists, engineers and architects were represented. Recent advances in these fields were discussed.



THE RELATIONSHIP OF PHARMACY AND MEDICINE was the topic of discussion on the panel sponsored by the Western Illinois Pharmaceutical Association and the Knox County Medical Society. From left are Dr. Victor M. Dorris, president of the Knox County Medical Society; Richard S. Strommen, executive director of the Illinois Pharmaceutical Association; William P. Taggart, president of the Western Illinois Pharmaceutical Association and Robert L. Richards, ISMS executive administrator.

The reporting of Tuberculosis or "suspect cases" is mandatory in Illinois.

It is the duty of every physician, hospital or laboratory having knowledge of a known case or suspect case of tuberculosis to promptly report such case to a local health officer or to the regional office of the Department of Public Health.

ISMS Tuberculosis Committee

Two Illinois Communities

Welcome New Physicians

Two Illinois communities have recently been removed from the ISMS Physicians' Placement listing with the location of physicians in their areas.

Martinsville, Clark County, population 1,500, recently welcomed Dr. Charles C. Moore with a modern medical clinic built under the Medical Assistance Program of the AMA and the Sears-Roebuck Foundation.

Dr. Moore is a graduate of the University of Louisville School of Medicine and recently completed military duty. The medical center was built by the Martinsville Clinic Facilities Association, a non-profit organization, with funds raised from more than 800 individuals and businesses in the Martinsville area.

Clay City, Clay County has welcomed back Dr. Chester C. Doherty who has retired from his Chicago practice and returned to Clay City to practice in this community of 1,100.

Current openings listed with the ISMS' Physicians Placement Service include:

Fayette County: Ramsey, population 815. Estimated population of trade area, 2,500. Two physicians died recently leaving no resident physician. Nearest physician and hospitals at Vandalia, 14 miles, and Pana 18 miles. Several small towns in trade area without physicians. 52 miles from Decatur, population 65,000. Office space of deceased physician available. Agricultural community.

Grundy County: Minooka, population 600. Estimated population of trade area, 1500. Present physician leaving and replacement needed. Community has supported a physician for over 50 years. No physicians within 10 miles. 15 miles from Joliet, population 70,000. Agricultural community with many employed at Caterpillar Tractor Factory.

LaSalle County: Sheridan, population 725. Estimated population of trade area, 2000. Several small towns in trade area without physicians (Serena, Norway, Hebron and Newark). Only physician left to take residency. Nearest physician 10 miles. Nearest hospital at Sandwich, 12 miles. 40 miles from Aurora, population 50,000. Sources of income: agriculture and industry

Livingston County: Pontiac, population 8,435. Estimated population of trade area, 30,000. 9 practicing physicians—additional physicians needed. 65 bed hospital. 45 miles from Joliet. Office space available. Source of income: industry.

Macon County: Argenta, population 900. Town without a physician since April 1961. Several small neighboring communities without physicians. Nearest physicians 10 miles, Decatur, population 87,000. Limited office space available with community willing to build suitable office for physician. Agricultural community with many factory workers commuting to Decatur.

Marshall County: Wenona, population 1,200. One physician, age 50 who is anxious for a second physician to locate there. Several nearby towns without physicians. Nearest hospital (200 beds) 15 miles, 45 miles from Peoria. Newly remodeled office building available. Financial assistance may be arranged. Sources of income: agriculture and two local factories.

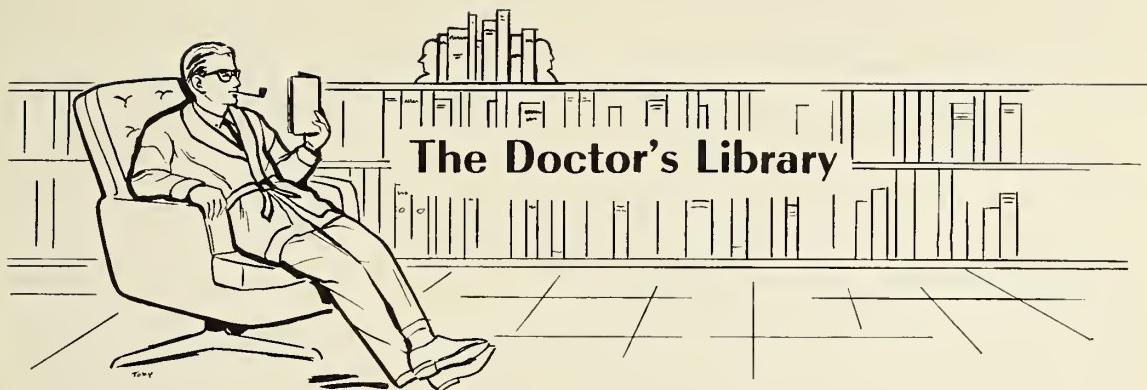
McLean County: LeRoy, population 2,000. Estimated population of trade area, 10,000. Several towns in trade area without physicians. Two practicing physicians one of whom plans to leave due to illness. Nearest hospital 14 miles, 30 miles from Champaign. State park with lake under construction within a few miles.

Morgan County: Chapin, population 550. Estimated population of trade area, 1500. Nearest physicians and hospitals at Jacksonville, 10 miles, population 20,387. Financial assistance can be provided. Agricultural community.

Wabash County: Mount Carmel, population 8,586. Estimated population of trade area, 15,000. 5 practicing physicians with need for additional physicians. 75 bed hospital. Nearest large city Evansville, Indiana, 40 miles, population 125,000. Financial assistance can be arranged. Sources of income: factories, railroad and agriculture.

Inquiries and comments should be directed to: Mrs. Robert Swanson, Secretary, Physicians' Placement Service, Illinois State Medical Society, 360 North Michigan, Chicago 1, Illinois.

Mr. Harold Widmer, ISMS Legislative Representative, who is frequently in the field also has a listing of openings in the State. He may be contacted when he is in your area or at the ISMS Springfield office.



MEDICINE AND THE STATE. Matthew J. Lynch, M.D., and Stanley S. Raphael, M.D. \$9.75. Springfield, Illinois, Charles C Thomas, 1963.

Written by two Canadian pathologists, this book approaches the problem of political medicine in a scientific way. The book begins with the ideal concept stated in the preamble of the Constitution of the World Health Organization. "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition." The authors then quote the opinions of several widely read authors who believe that this ideal can only be attained through socialized medicine.

The book is composed of two main parts. Part I consists of a detailed analysis of social medicine as practiced in Germany, Austria, the U.S.S.R., Britain, New Zealand, Australia and Sweden. This portion of the book is well documented, gives a complete history of the system in each country, includes tables to illustrate the gradual changes in each system and the effect on the public health of each country.

Also included in Part I is a careful analysis of the impact of the systems on the public, the hospital, and the professions of pharmacy and nursing as well as medicine. Much attention was given to the cost of each system.

Part II is composed chiefly of an appraisal of the different systems. First, the patient is considered. It is pointed out that in the normal, free society a patient primarily consults a physician for the treatment of an illness. In those countries with social medicine, the treatment of sick patients is only one of the physician's many duties. One of his major functions is to serve as a quasi-police officer because a worker must have a physician's certificate if he is to be paid while off work. For this reason, many countries discourage the free choice of physicians by patients fearing collusion be-

tween the physician and the patient with increased malingering. In spite of this safeguard, malingering has increased tremendously.

Among the changes in medical practice are the maldistribution of physicians and the slight possibilities for private practice. Also emphasized are the difficulties in obtaining qualified students for the medical schools and the increase in immigration of those who have graduated.

The economics of each system is recorded. All disclose a constant increase in the cost paralleled by a constant decrease in the quality of the medicine provided.

The final chapter of the book is labeled "Conclusions". While the foregoing sections of the book read more like a paper in scientific research, this section of the book records a brilliant array of significant statements a few of which follow:

"All compulsory schemes, but especially those relieving patients of all financial responsibility, impair and may destroy the doctor-patient relationship."

"From the point of view of the medical profession, all evidence seems to point to the erosive influence of socialized medicine on professional standards—ethical, moral, social and economic. Under such systems, even those professions with outstanding traditions are gradually but inevitably transformed into dispirited, over-worked, underpaid and socially debased branches of the civil service or, as in Russia, to a proletarian technocracy."

"There is little if any parallel between Public Health and Personal Health Care. The former concerns itself with the provision of such things as adequate housing, hygienic food and water supplies, sewage disposal and prevention of epidemics, i.e. it is concerned with THINGS and with persons only when they become a positive danger and threat to their fellows. Personal health care, on the other hand, is concerned with the individual, and it has all the facets and overtones, all the qualities, peculiarities and unpredictabilities that make a person an individual. Personal health care cannot be supplied as one purveys gas, electricity, water or even food."

This book should be in every physician's library. The statistical information needed in comparing different political practice plans are included for careful study. The "appraisal" together with the "conclusions" are logical and without question condemn all types of socialized medicine.

J. Ernest Breed, M.D.

SYNOPSIS OF ROENTGEN SIGNS. Isadore Meschan, M.A., M.D. \$11. Pp. 436. Philadelphia, W. B. Saunders Company, 1962.

This book is based on Dr. Meschan's excellent text—"Roentgen Signs in Clinical Medicine". (Saunders, 1956).

The first four chapters deal with fundamentals; techniques, protection, general terms used in Radiology and basic concepts regarding bone formation. The remaining chapters are devoted to the radiological appearance and the chief clinical characteristics of almost all of the various roentgenographically demonstrable lesions or abnormalities.

All of this material is presented in short, concise statements with roentgenographic illustrations and line-drawings. For the most part, each page is an exhibit of the particular entity under discussion.

This text should be of special value to medical students and residents for quick reviews. It should also be of value to the physician who is unable to obtain roentgenological consultation.

R. B. Lewis, M.D.

PHYSIOLOGY OF THE CIRCULATION IN HUMAN LIMBS IN HEALTH AND DISEASE. John T. Shepherd, M.D. \$12. Pp. 416. Philadelphia, W. B. Saunders, 1963.

This book is directed to four groups of people: the graduate student with a major interest in the cardiovascular system, the young investigator who is anxious to survey the general field in order to be better able to decide on fruitful areas of study, the experienced investigator looking for a source book of information, and the clinician whose interest is in diseases affecting the vascular system and who wishes to have a basic textbook on the behavior of human blood vessels in health and disease.

Doctor Shepherd, who is Professor of Physiology, Mayo Foundation, Graduate School, University of Minnesota, has succeeded in amassing a prodigious amount of information under four simple headings. Section One is entitled "Nervous Control of Blood Vessels"; Section Two, "Local Control of Blood Vessels"; Section Three, "Humoral Control of Blood Vessels" and Section Four, "Modification of Blood Vessel Activity by Disease". Within these four headings, the author has succeeded in covering all of the pertinent research of the past several decades and has applied the findings of this

research to known diseases of the peripheral vascular system.

Although no one section is burdened with an overly lengthy bibliography, the careful chosen references do serve an extremely useful purpose in covering the pertinent literature thoroughly. If there is any fault with this book, it is perhaps that some areas are handled too succinctly and yet the conciseness of the approach is at the same time a great advantage of this text. It should be on the shelf of anyone interested in the practical application of research to clinical medicine.

Harold Laufman, M.D.

PREVENTIVE MEDICINE IN WORLD WAR II, VOLUME VI.

Edited by Colonel John Boyd Coates, Jr., MC, U.S.A. \$6.25. Pp. 642. Washington, D.C., Office of the Surgeon General, Department of the Army.

This is the latest volume (VI) in the Preventive Medicine series of the history of the Medical Department, U.S. Army in World War II.

This volume was prepared and edited under the guidance of an Advisory Editorial Board, with Stanhope Bayne-Jones, M.D., former Dean, Yale University School of Medicine, as chairman. With an introductory chapter by Paul F. Russell, M.D., and the remaining chapters written by twelve other eminent authorities in malariology, this book relates the difficulties as well as the triumphs in the constant fight against malaria in the United States, the South Atlantic and Caribbean area, North Africa, Italy, the Mediterranean Islands, the Africa-Middle East Theater, the China-Burma-India Theater, the Southwest Pacific Area, and other areas in the world where our troops were stationed during World War II.

To overcome this devastating disease during the war, a seemingly insurmountable program of survey, research, control, and prevention of this destructive and incapacitating disease was implemented. It required the cooperative efforts of both governmental and private health organizations to attain the final success of the malaria program.

The lessons learned about malaria during World War II have been and will continue to be most helpful for planning preventive programs in the future. The epidemiology of malaria and the technical application of control measures are basically the same in military and civilian communities.

This volume provides excellent reference material for both civilian and military physicians, sanitarians, and many others associated with preventive medicine.

This 642 page volume includes 63 illustrations, 80 tables, 26 charts, 32 maps, a comprehensive index, and is available for purchase at the Superintendent of Documents, Government Printing Office, Washington, D.C. 20025.

T. R. Van Dellen, M.D.

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*Scal, J. C.: Eye Ear Nose & Throat Month. 38:738 (Sept.) 1959.

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Rx Review

New Dosages

Anti-Anxiety Agent

Permitil® (fluphenazine), new anti-anxiety agent effective in low dosage, is now available in repeat-action form as Permitil Chronotab® Tablets by White Laboratories. Each tablet supplies 0.5 mg. fluphenazine in outer core for immediate release and 0.5 mg. in inner core for delayed release, permitting simple once-a-day administration.

Indications: Permitil alleviates symptoms of anxiety, tension and emotional unrest without dulling alertness. It frequently allays anxiety-induced apathy, depression and chronic emotional fatigue. Its use is indicated for the relief of multiple symptoms of emotional distress commonly presented.

Dosage: Adults—with the use of Permitil Chronotab (1 mg.), a dose of one tablet taken in the morning, is therapeutically effective in the large majority of patients. In occasional patients with relatively severe symptoms, who have tolerated but have not adequately responded to daily administration of one Chronotab Tablet, the single daily dose may be increased to a maximum of two Permitil Chronotab Tablets.

Side effects have been infrequent and have been transitory with dosages not exceeding 2 mg. per day.

Contraindications and precautions: As with other phenothiazines, Permitil is contraindicated in comatose or severely depressed states. Although agranulocytosis has not been reported with Permitil, leukopenia or other signs of bone marrow depression are contraindications to the use of the drug. There is little likelihood that Permitil, in recommended dosage, will lower convulsive threshold but the drugs should be used cautiously in patients with a history of convulsive disorders.

How Supplied: Permitil Tablets, 0.25 mg. (green) in bottles of 50 and 500. Permitil Chronotab Tablets, 1 mg. (yellow), in bottles of 30 and 250.

Correction: The available dosage form for Permitil Chronotab tablets was incorrectly given as 2 mg. in the article "Fluphenazine in the Treatment of the Chronically Ill and Aged Patient" by Drs. Chesrow, et al., which appeared in the September issue of the *Illinois Medical Journal*. The correct available dosage—as noted in the product description above—is 1 mg.

Fluoride—Multivitamin Supplement

Fluorac® a fruit-flavored fluoride-multivitamin supplement has been made available in liquid form by

U.S. Vitamin & Pharmaceutical Corporation. Each 0.6 cc. of aqueous Fluorac Drops provides: Fluoride (as sodium fluoride)—0.5 mg.; Phridoxine HCl (B₆)—2 mg.; Ascorbic Acid (C)—75 mg.; Vitamin A (palmitate)—5,000 U.S.P. Units and Vitamin D (calciferol)—500 U.S.P. Units.

Action and Uses: Fluorac drops provide safe range daily dosage of caries-preventing fluoride, plus vitamins important to dental health and normal growth and development. Adequate fluoride intake by infants and pre-teenage children may prevent up to 60 percent of dental caries.

Administration and Dosage: 0.6 Fluorac Drops daily, placed directly on the tongue or mixed in milk, formula, water, fruit juice or food.

Precautions: Do not exceed recommended dosage. Fluorac Drops should be used only in areas where the fluoride content of the drinking water is 1.0 parts per million or less, and the total daily intake from this source does not exceed 0.3 mg. for children under 3 and 0.5 mg. for age 3 and over.

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Contraindications: Severe hypertension, renal, hepatic and peripheral vascular diseases; arteriosclerosis and

(continued on page 574)

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Oral Diuretic-Antihypertensive

Anhydron™ (cyclothiazide, Lilly), a new orally-effective diuretic-antihypertensive agent synthesized in the Lilly Research Laboratories, is being distributed by Eli Lilly and Company for the treatment of edema and hypertension. It combines the advantage of low, once-a-day dosage (1 to 2 mg.) with notable safety and effectiveness, and prolonged duration of action.

Anhydron is available in two additional forms for flexibility in treatment. They are Anhydron K® (cyclothiazide with potassium chloride, Lilly) and Anhydron™ KR (cyclothiazide with potassium chloride and reserpine, Lilly). All preparations of Anhydron are dispensed only on prescription.

Each light pink, capsule-shaped tablet of Anhydron contains 2 mg. cyclothiazide and is scored for ease in adjusting dosage.

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Each dark pink tablet of Anhydron KR contains the same amount of cyclothiazide and potassium chloride plus 0.25 mg. reserpine.

The tablets that contain potassium chloride have it in an inner core, which is enteric-coated to prevent gastric irritation. The outer coating incorporates the Anhydron or the Anhydron and reserpine for rapid release.

In extensive clinical and pharmacologic studies the safety and usefulness of the new thiazide compound were established. It was shown to be effective in those conditions in which increased urinary excretion of sodium chloride and water is desirable—for example, congestive heart failure, edema associated with premenstrual tension, edema and toxemia of pregnancy, and edema due to liver cirrhosis.

It is also useful in the management of hypertension. When given alone, it usually produces satisfactory results in mild hypertension. In severe hypertension, Anhydron is a valuable adjunct to other antihypertensive agents because it enhances their effectiveness and thus often reduces their dosage requirements.

Although Anhydron increases the excretion of potassium, it causes no greater loss of potassium than do other thiazide diuretics. When potassium supplementation during therapy is desirable (Anhydron K is indicated).

Anhydron KR is used for the management of arterial hypertension when potassium and reserpine are desired as supplementation to therapy with Anhydron.

Side Effects: In the pharmacologic and clinical studies, cyclothiazide has caused no toxic effect on the body organs, including blood, liver, and kidneys. How-

ever, as with any other thiazide, its injudicious use may result in sodium and potassium depletion, which, in turn, may lead to weakness, lethargy, leg cramps, anorexia, vomiting, and/or mental confusion.

In hypertensive patients, early warning of over-dosage may be provided by such signs as lightheadedness and weakness upon standing, excessive orthostatic hypotension (usually associated with tachycardia), and a rising blood urea nitrogen or nonprotein nitrogen. If side-effects occur, the dosage should be reduced or the medication discontinued.

To prevent excessive loss of sodium and potassium, a too rapid and profuse diuresis, resulting in a continued daily loss in body weight of more than four pounds, should be avoided.

Anhydron is not contraindicated in diabetes, but it can produce a further decrease in glucose tolerance. It should not be used in the presence of severe renal impairment.

How Supplied: Tablets Anhydron, 2 mg., Light Pink (scored), are supplied in bottles of 100 (No. 1850). Tablets Anhydron K, Red, Specially Enteric-Coated, are supplied in bottles of 100 (No. 1851). Tablets Anhydron KR, Dark Pink, Specially Enteric-Coated, are supplied in bottles of 100 (No. 1852).

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December, 1963

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FROM WASHINGTON FROM CHICAGO



ISMS "Double Teams" Medicare



DR. HESSELTINE IN WASHINGTON

"Medicare unnecessary in Illinois . . ."

How effectively does Illinois medicine convey its message to the public?

A dramatic example occurred Nov. 21 when ISMS told the House Ways and Means Committee in Washington that Illinois didn't need Medicare because it provided amply for its own medically needy of all ages—whether or not they could pay for such care.

Even as the Society presented its testimony, every newspaper, radio and television station in the state was primed and ready to relay this news to Illinois citizens.

Their readiness was due to an intensive communications effort directed by the ISMS Committee on Public Relations and implemented by the PR staff.

On only three-days' notice, news kits were prepared and distributed

to all 120 radio stations and 14 television stations throughout the state.

In addition, a 6½ page news release covering the testimony in detail was prepared and sent to all 750 daily and weekly newspapers throughout the state.

The same day that Dr. Hesseltine presented his testimony in Washington, ISMS President Dr. Harlan English announced an important new educational program supporting our stand against Medicare.

At a mid-morning news conference Dr. English told reporters that the program—to be launched early in 1964—would utilize radio, television, the newspapers, pamphlet literature and perhaps outdoor billboards to tell the public how voluntary health and welfare programs at the state and community levels are meeting and will continue to meet the health needs of all Illinois citizens.

"Because the exact date of Dr. Hesseltine's testimony was learned only a few days beforehand," explained Dr. Leo P. Sweeney, PR Committee Chairman, "we had to act fast. Preparation of the long and involved news release—plus the radio and television materials—kept our staff working well into the night for several nights in a row."

With time so short, any delays would have seriously marred the effectiveness of the effort.

"And this almost happened," Dr. Sweeney reflected. "A technical difficulty encountered while developing the film strips delayed the



DR. ENGLISH IN CHICAGO

"... a new program in '64 . . ."

mailing to television stations until the night before Dr. Hesseltine was scheduled to testify. To make certain that the strips would be received in time, one of the staff had to remain at the production studio to supervise mailing from there.

"Our Society's testimony in Washington—coupled with the pronouncement by Dr. English in Chicago—form a well-timed 'one-two punch' that will help knock out many misconcepts about Medicare legislation and the ability of our state to care for its own medically needy," Dr. Sweeney declared.

He added that the new educational program to be launched early next year is a challenge that the PR Committee "accepts with pride as part of its continuing pledge to keep the public informed."

Community Service Spotlights Fall Meetings

"Community Service—What Can We Do?" was the provocative theme explored at the Auxiliary's First District Fall Workshop Conference held in Zion, Illinois Oct.



CMS COMMUNITY SERVICE LUNCHEON in Chicago Nov. 12 boasted an array of distinguished participants and guests. From left are Mrs. Albert V. Crewe, wife of the distinguished speaker; Dr. Allison Burdick, CMS President; Mrs. Silvio Del Chicca, CMS Auxiliary President; Mrs. John C. Vermeren, CMS Community Service Chairman; distinguished speaker Dr. Albert V. Crewe, Director of Argonne National Laboratory; Mrs. Enrico Fermi, wife of the famed late physicist who invented the atomic bomb; and Mrs. Paul H. Carstens, CMS Community Service Co-chairman.



FIRST DISTRICT CONFERENCE participants in Zion Oct. 29 are from left: Mrs. August Martinucci, Joliet, State Safety Chairman; Mrs. Newton DuPuy, Quincy, State Community Services Chairman; Mrs. John Koenig, Chicago, State Program Chairman; Mrs. Matthew Uznanski, Chicago, State President; Mrs. Glen Harrison, Lake Forest, Counselor for the First District; Mrs. Willard Scrivner, East St. Louis, State President Elect; Mrs. Glenn Marshall, Effingham County, State Mental Health Chairman; Mrs. Eugene Vickery, Lena, State Rural Health Chairman; and Mrs. Alden Rarick, Danville, State Health Careers Chairman.

29. Among the 90 guests at the Conference was Mrs. R. V. Sathe of Bombay, India, a physician and wife of the immediate past president of the World Medical Association. Members of Lake County Auxiliary were Hostesses.

On Nov. 12, over 300 distinguished representatives of science, education, medicine, law and government gathered at the Sherman

House in Chicago for one of the highlight meetings of the season—the annual Community Service Luncheon of the Chicago Medical Society.

"The attendance and high caliber of these meetings deserve our most heartfelt congratulations to all those involved with the arrangements," stated State Auxiliary President Mrs. M. E. Uznanski.

A WONDERFUL Auxiliary Program For The New Year . . .



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The Pulse Christmas Story

And Then There Were Ten



MERRY CHRISTMAS FROM THE MORRISONS—From left are grandmother Mrs. Elizabeth Moore holding Joseph, 2; rear row Dr. Morrison; Danny, 6; Jimmy, 5; Anne and Tim, 9; and Mrs. Morrison with Becky, 5½ mos. Front row left to right are Mark, 5; Tom, 4; Mary, 10 mos.; and Martha, 7.

ON THE NIGHT BEFORE CHRISTMAS of 1954—at exactly 3:00 a.m.—a silvery Trans-Canada airliner touched down at Chicago's O'Hare Airport.

Among its drowsy passengers were Dr. David R. Morrison, a general practitioner in West Chicago, Illinois, and his wife. Although chilled by the numbing December winds as they stepped from the plane, their spirits glowed with warmth generated from the two precious "gifts" in their arms—Tim and Anne, both age 6½ months.

"Tim and Anne are our twins, the first children we adopted," recalled Dr. Morrison.

He and Mrs. Morrison brought them home from an orphanage in Quebec City which Catholic Charities of Chicago sometimes recommends to adoptive parents.

"At that time we were certain that we had seen the last of the Canadian orphanage," Dr. Morrison said. "As it turned out neither my wife—who is a professional nurse—nor I has ever made such a grossly inaccurate diagnosis."

Within nine years, the Morrison family has grown from two to 10. Martha was adopted in the spring of 1957. Next came Mark in 1958

and Danny in 1959. Tommy, Joseph and Jimmy were adopted in 1961, followed in 1963 by Mary and Rebecca.

All except Martha, Mark and Danny were adopted in Canada.

Because adoption policy usually restricts adoptive parents to two children, the Morrisons had to account for their growing brood with an exceptional system of arithmetic.

"Our twins counted for only one adoption because they are from the same birth," Dr. Morrison explained. "Martha, Mark and Danny have slight physical defects, so technically they didn't count. After we showed that we could take care of our first five children—who technically counted as only two—the usual restrictions were lifted."

Why have the Morrisons adopted 10 children?

"It's hard to explain," said Mrs. Morrison, a vibrant woman set aspinkle with the joy of living. "After two years we had not had children of our own . . . opportunities for adoption kept presenting themselves . . . added up, I feel that it was the will of God."

"We're like any typical large family," explained Dr. Morrison.

"There are the usual squabbles, the noisy fun and the occasional odd discoveries, like a pencil in the jar of mayonnaise or a ping-pong ball in the strawberry jam."

The Morrison prescription for child-raising—one part understanding, one part teaching of proper values and many parts love—is amply demonstrated in their celebration of Christmas.

"We try to play down the commercial hub-bub and emphasize the true meaning of the Season," Dr. Morrison said. "One custom is to read from the Bible every night from Christmas Day to the Epiphany. Another custom was instituted when the twins learned that Christmas marks the birth date of our Lord. At their insistence, we bake a birthday cake every December 25, deck it with candles and sing 'Happy Birthday Dear Jesus.'"

When asked how the children react to each other, Dr. Morrison settles back to tell what is obviously his favorite anecdote.

"Last August, when we brought Mary and Becky home from Quebec, the twins met us at the airport with their grandmother. As Timmy ran up to us he said, 'Gee Mom and Dad, isn't it wonderful? Now we're a family of ten.'"



AT PRAYER—"This picture is deceptive," quipped Dr. Morrison. "We seldom get all of them to hold still this long."

COUNTY CAPSULES



DUPAGE COUNTY physician Dr. Max Klinghofer, right, receives plaque for his contributions to Disaster Medical Care from U. S. Public Health Service represented by Dr. Gabriel Ferrazzano, left, Health Service Mobilization Chief. Award capped National Conference on Disaster Medical Care in Chicago Nov. 2-3.



FAYETTE COUNTY honored Dr. Mark Greer Nov. 19 for 50 years of medical practice. Mrs. Greer proudly fastens 50-year Pin to Dr. Greer's lapel.



PEORIA COUNTY Medical Society President Dr. Lorin Whittaker, left, presents engraved desk set to Gerald Egelston, Manager of Educational Services for Lederle Laboratories during Lederle symposium in Peoria Nov. 14. Award was presented for Mr. Egelston's efforts to bring "excellent scientific programs to the physicians of Central Illinois."

ISMS Forms Medicine-Religion Committee

As the holiday season approaches men are viewed against their total environment more than at any other time. Medical leaders have long recognized that man cannot be separated into parts for care and treatment of illness. Man is a whole being and his health is affected by physical, spiritual, mental and social factors.

The Illinois State Medical Society established a Committee on Religion and Medicine this year and held its first meeting Nov. 24. Society action followed the establishment of the Department of Medicine and Religion by the American Medical Association.

The Reverend Paul B. McCleave, a Presbyterian clergyman, who serves as AMA Department director spoke to the ISMS House of Delegates in May, 1963. Dr. McCleave said: "We recognize the fact immediately that every patient that comes to your office does not need a clergyman any more than every parishioner walking into our office needs a physician. However, there are times and circumstances in which we find ourselves when it might be well to have a colleague that can participate with us. We are today concerned with the total care and treatment of the patient."

The Department of Medicine and Religion has projected plans for studies in four areas in which the physician-clergy relationship is vitally important. These are: 1) Hospital chaplain and pastoral clinical education; 2) Medical school and nurse education; 3) Theological seminary education; and 4) Physician-clergy relations in total patient care. The object of these studies is to ascertain what is being done in these areas to advance liaison between the professions and to inform physicians of these activities.

Here in Illinois, the efforts of this Committee will be to encourage local activities. In the community, physicians must meet with clergy in small groups in order to initiate understanding and develop that understanding into active cooperation. Special county medical society meetings on this subject should be arranged. Program materials, ideas and suggestions may be procured through this Committee.

The concept of "Peace on Earth-Good Will Toward Men" passes quickly after the holidays. But the idea of man as a being with spiritual, mental and physical needs must always be preserved. This Committee will strive towards this goal.



"THE ONE WHO HEALS" is name of AMA Medicine-Religion Committee film shown at initial meeting of ISMS Committee on Medicine and Religion held Nov. 24. From left are Dr. C. W. Pfister; Arne Larson of AMA staff; Dr. Joseph R. Mallory, Chairman of ISMS Committee; and Dr. J. Ernest Breed.

NEWS and ANNOUNCEMENTS



Awards

Dr. Lowell T. Coggeshall, a vice-president of the University of Chicago, has been awarded the 1963 Abraham Flexner Award for Distinguished Service to Medical Education. The citation was presented to Dr. Coggeshall at the annual meeting of the Association of American Medical Colleges.

Dr. Charles Huggins, William B. Ogden Distinguished Service Professor and Director of the Ben May Laboratory for Cancer Research of the University of Chicago was a co-winner of the Lasker Clinical Research Award. This honors significant contributions to clinical investigation and the application of basic research findings to eliminate the major medical cases of death

and disability. The prizes were awarded recently at the New York Academy of Medicine.

Dr. Julius B. Novak, Medical director of the Tuberculosis Institute of Chicago and Cook County, was the recipient of the Dearholt Medal, awarded at the joint sessions of the Mississippi Valley Conference on Tuberculosis and the Mississippi Valley Thoracic Society. The Medal is the highest award of the associations.

Dr. Anthony V. Partipilo, president and chief of the surgical department of Mother Cabrini Hospital, Chicago, was honored by Loyola University recently for distinguished service to the medical profession and to the Stritch School of Medicine. A graduate of the Stritch School of Medicine, he is presently a clinical professor

BRF Celebrates 10th Year

The Brain Research Foundation celebrated its tenth anniversary at the Bismarck Hotel in Chicago, Illinois on October 30, 1963.

Action was taken to honor the founders of the Foundation, Dr. Ladislaus Meduna its first president; Dr. Carl Pfeiffer, the founding treasurer; and Dr. Frederic A. Gibbs, the first secretary.

Mr. Earl Schenck Miers, a distinguished author, editor and historian from Edison, New Jersey was the principal speaker at the luncheon. Miers is one of the nations outstanding examples of a man who has achieved success despite the severe handicap of Cerebral Palsy.

Dr. Woodruff L. Crawford, announced plans for the Fifth Scientific Conference of the Brain Research Foundation, to take place in Chicago in February, 1964.



MR. WILLIAM E. FAY, JR., President, opens the Tenth Anniversary meeting of The Brain Research Foundation, held in The Bismarck Hotel, Chicago, on October 30, 1963. Left to right at head table: John D. Mabie, Assistant Treasurer, Robert A. Dwyer, Vice President, Lawrence J. Linck, Vice President, Earl Schenck Miers, Guest Speaker, William E. Fay, Jr., President, Leo G. Abood, M.D., Vice President, John P. Forester, Secretary, Woodruff L. Crawford, M.D., Chairman, Scientific Council; Foreground: Illinois State Medical Society Past President, Dr. George F. Lull and Illinois State Medical Society President-Elect, Dr. Edward A. Piszczeck.

of surgery there. In 1959, he was knighted as Cavaliere Officiale by the republic of Italy.

Appointments

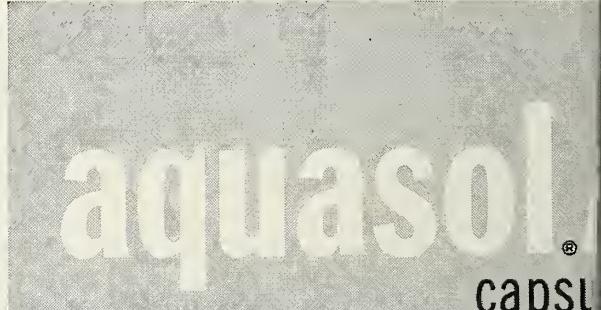
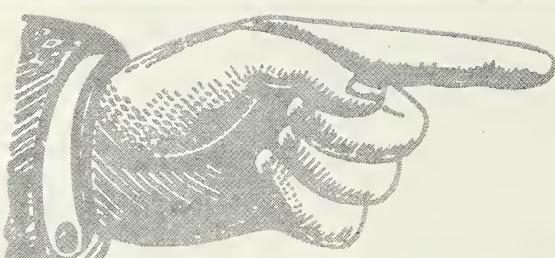
The Board of Trustees of the Hektoen Institute for Medical Research of Cook County Hospital has announced the appointment of the following as members of its Scientific Advisory Committee: Professor E. B. Chain, Director of Instituto Superiore Di Sonita, Rome, Italy; Doctors Lloyd W. Law, Head, Carcinogenesis Section National Cancer Institute, Washington, D.C.; Israel Davidsohn, Chairman, Department of Pathology, Chicago Medical School; Jesse E. Edwards, Director of the Department of Pathology, Charles T. Miller Hospital, St. Paul, Minnesota; Thomas Francis, Jr., Chairman, Department of Epidemiology, University of Michigan School of Public Health, Ann Arbor, Michigan; and Lester R. Dragstedt, Professor of Surgery, University of Florida, Gainesville, Florida.

M.D.'s In The News

Dr. George F. Lull, immediate past president of ISMS, has been appointed to a seven-member ad hoc committee to study the activities of the AMA House of Delegates. . . . Dr. Carl E. Clark, Sycamore, has been re-elected chairman of the American Association of Medical Assistants' national physicians advisory committee. . . . Two Illinois physicians figured prominently in the recent convention of the American Society of Anesthesiologists. Dr. Joseph Boggs, professor of pathology, Northwestern University Medical School spoke on "The Liver and Anesthesia" and Dr. Lawrence D. Ruttle, Joliet, served as Director of the House of Delegates. . . . Dr. Loyal Davis who recently resigned as chief of surgery at Passavant Memorial Hospital and chairman of the Department of surgery at Northwestern University was honored recently by the hospital. Passavant's eight operating rooms and allied facilities have been named the Loyal Davis Surgical Suite.



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Grants

The John A. Hartford Foundation of New York City has awarded a grant of \$149,925 to the University of Chicago for the development of a new miniature electrical battery-powered surgical stapling instrument. The project will be carried out by a group of surgical specialists from the University working with a team of technical experts from the Research Institute at the Illinois Institute of Technology. It is expected to take two years to complete. Dr. H. Stanley Bennett, Dean of the Division of the Biological Sciences of the University stated that "although a number of automatic and semi-automatic stapling devices have been developed in this country and abroad, they have either been too cumbersome to be satisfactory, or have been designed for only one type of use and have not been adaptable to various tissues. The goal of this program is to develop an instrument which will be small enough for the surgeon to

hold in one hand, and versatile enough to be used for stapling a variety of tissues.

Two grants have recently been awarded to the University of Illinois College of Medicine in Chicago by the U. S. Public Health Service. Ways to reduce the likelihood of certain cancers caused by stress are now being studied under research being conducted by Dr. Warren H. Cole, head of the department of Surgery and Dr. Richard S. Webb and Dr. Jack Magell, instructors in surgery. A central laboratory to study the state of kidneys in patients with high blood pressure caused by reduced renal blood flow has been established in the Department of Pathology under another grant. The laboratory has been organized by Dr. Conrad L. Pirani, professor of pathology and Dr. Dino Graziani, research assistant in pathology. "It has been determined that approximately two to five per cent of all patients with hypertension not due to primary kidney disorders, glandular or other conditions, have the disease because of abnor-

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*U.S. Department of Health, Education and Welfare, Public Health Service Publication No. 813.

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malities which cause a reduced blood flow through one or both major arteries of the kidneys," explained Dr. Pirani. "This condition can be corrected surgically."

Correspondence

Dear Doctor:

The College of American Pathologists, in association with the National Institutes of Health and many prominent endocrinologists, has recently assisted in the formation of a national organization to handle a pressing medical need. This organization, the National Pituitary Agency, will collect pituitaries for the extraction of human growth hormone, follicle stimulating hormone and other trophic hormones. There are thousands of dwarfed children who can be successfully treated only with your cooperation. Growth hormone works but it can only be obtained from human pituitaries. Literally thousands of pituitaries are needed this year to treat the thousands of dwarfed children.

Since the need is so great, the appeal must be great. Every pathologist in every hospital, no matter how large or how small, must help. The collective effort of pathologists collecting ten or twenty pituitaries a year in small hospitals will be a most significant contribution. It is now possible to extract hormone from embalmed pituitaries.

Your help is greatly needed and deeply appreciated.

Robert M. Blizzard, M.D.
Director
National Pituitary Agency
1900 McElderry Street
Baltimore, Maryland 21205

ANNOUNCEMENTS

ISMS Speakers Bureau

The ISMS Scientific Speaker's Bureau has arranged several county society speakers in the next few weeks. Dr. Daniel H. Callahan, Jr., Clinical Instructor of Urology, University of Illinois College of Medicine, will speak on "Of-

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fice Urology" at the December 19 meeting of the Knox County Medical Society. Dr. Warren H. Cole, professor and Chairman, Department of Surgery, University of Illinois College of Medicine will speak on "Current Trends in Gallbladder Disease" at the January 28 meeting of the Bureau County Medical Society.

Dr. Vincent J. Collins, associate professor of surgery at Northwestern University Medical School, will discuss "Shock—New Attitudes" before the January 16 branch of the McHenry County Medical Society. "Dermatological Look-Alikes, will be the subject of the December meeting of the Society. Dr. Louis Rubin, Clinical Assistant Professor of Dermatology, University of Illinois College of Medicine, is the discussant.

Awards Available

The American Society for the Study of Sterility will accept applications for the Carl G. Hartman Grant-In-Aid awarded to the most meritorious research project in fertility and sterility or related subjects. Application should be sent to Michael Newton, M.D., 2500 North State Street, Jackson 6, Mississippi before March 15, 1964.

Applications are now being accepted for the E. V. Allen Memorial Scholarship co-sponsored by the Mayo Foundation and the Minnesota and American Heart Association. Three months' cardiovascular study at the Mayo Clinic is offered. Information may be obtained from the Minnesota Heart Association, 1821 University Avenue, St. Paul, Minnesota.

New Literature

Preparing the mentally retarded child for school is the subject of a new pamphlet of the Public Affairs Committee, 22 East 38th Street, New York. Cost: \$.25.

"The Brain Injured Child" is also the subject of a booklet offered by the National Society for Crippled Children and Adults. The booklet aids in identifying the "invisibility handicapped"

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For Your Viewing

"Medifilm Report V" a 32 minute filmed report of highlights of the American Medical Association's 112th Annual Meeting in Atlantic City, has been made available to medical and allied groups by Schering Corporation. Produced in association with the AMA, the 16 mm. black and white sound film features scientific exhibits, interviews and a panel discussion. A print of the film may be obtained from the AMA, 535 North Dearborn, Chicago or the Audio-Visual Dept., Schering Corporation, Union, N.J.

PG Courses

Miami

A postgraduate course on "Recent Advances in the Diagnosis and Treatment of Diseases of the Heart and Lungs" will be held in Miami Beach, Florida, January 13-17, sponsored by the American College of Chest Physicians and the University of Miami School of Medicine. Full information may be obtained from the College, 112 East Chestnut Street, Chicago 11, Illinois.

The University of Miami School of Medicine and the University of Florida College of Medicine have announced a postgraduate seminar in anesthesiology "The Cardiovascular System" to be held in Miami Beach, Florida, January 5-8. Further information may be obtained from the University of Miami School of Medicine, Department of Anesthesiology, Jackson Memorial Hospital, Miami 36, Florida.

Cleveland

"Colorectal Surgery In Children and Adults" will be studied at the January 8-9 postgraduate course of the Cleveland Clinic Educational Foundation. Further information may be obtained from the Cleveland Clinic Educational Foundation, 2020 East 93rd Street, Cleveland, Ohio 44106.

Chicago

"The Year in Internal Medicine" will be the theme of a three day PG course covering the fields of hematology, gastroenterology, renal disease, endocrinology, cardiovascular disease, neurology, infectious disease and arthritis. The meeting will be held at Passavant Memorial Hospital and Northwestern University Medical Center, January 16-18. The course is designed to present a review of major areas of internal medicine considered to be of particular current interest. Special emphasis will be placed on application of new data from clinical and laboratory investigation to the problem of patient management. The faculty is composed of members of the faculty of Northwestern, University of Chicago Medical School, University of Illinois College of Medicine, Stritch School of Medicine of Loyola University, The Harvard School of Public Health and the National Heart Institute. The registration fee is \$40.00 and correspondence should be directed to Dr. Oglesby Paul, Passavant Memorial Hospital, 303 East Superior Street, Room 101, Chicago 11, Illinois.

Medical Memorabilia

Medical practice, as it was a century ago, has been assured preservation in American history, with the dedication of an Early American doctor's office in Greenfield Village, Dearborn, Michigan. The building from which Dr. Alonson Bingley Howard, practiced his pioneer-type medicine from the 1850's until his death in 1883, was dedicated recently as an addition to the 100 buildings in Greenfield Village where more than 300 years of American history is protracted.

Deaths

C. F. Alderson*, East St. Louis, died October 15, aged 60. He was a graduate of St. Louis University School of Medicine in 1933.

Hilda M. Bormanis*, Morton Grove, was a graduate of Latvijas Universitate Medicinas Fakultate, Riga, Latvia, in 1926. She served on the staff of the Veterans Administration Hospital in Downey. She died May 31, aged 63.

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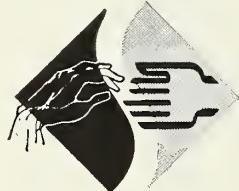
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Lewis L. Brown*, Chicago, died October 30, aged 72. A graduate of the University of Illinois College of Medicine in 1915, he had specialized in internal medicine for almost 50 years and had been on the staff of Michael Reese Hospital for 48 years. In World War I he was a captain in the medical corps.

Harry W. Dale*, Chicago Heights, a graduate of Northwestern University Medical School in 1902, died September 14, aged 76.

James B. Eyerly*, was a graduate of Rush Medical College in 1921 and also studied in Paris, Berlin and Vienna. A noted gastroenterologist, staff member of Presbyterian-St. Luke's Hospital since 1923 and clinical professor of medicine at the University of Illinois in 1941, he retired in 1960. He died October 26, aged 67.

Robert Gross*, Chicago, died November 8, aged 63. He was a graduate of Medizinische Fakultat der Universitat, Vienna, in 1926, specializing in radiology. He had been a staff member of the University of Vienna until 1938 when he came to Illinois. An associate of Frank Cuneo Memorial Hospital, he was also a staff member of the German Consulate General and Northwestern University Medical School Faculty.

Zack Hudson, Marion, was a graduate of St. Louis College of Physicians and Surgeons in 1907. He died October 5, aged 79.

David M. Jordan, Chicago, was a graduate of Northwestern University Medical School in 1945, specializing in psychiatry and neurology (certified in 1951). He was chief of service of the Illinois State Psychiatric Institute and died October 1, aged 42.

John W. Keane, Chicago, died June 6, aged 63. He was a graduate of Loyola University School of Medicine in 1927, a veteran of World War II and affiliated with St. Anne's Hospital.

Gabriel Saltarelli*, Elmwood Park, was a graduate of Chicago Medical School in 1929. He died September 28, aged 64.

John J. Smid, Riverside, died October 16, aged 51. He had been a physician and surgeon in the Chicago area for 25 years.

Gilbert Walter*, Chicago, died October 26, aged 36. He was a graduate of Northwestern University School of Medicine in 1956 and a staff member of Weiss Memorial Hospital.

*Indicates member of Illinois State Medical Society.

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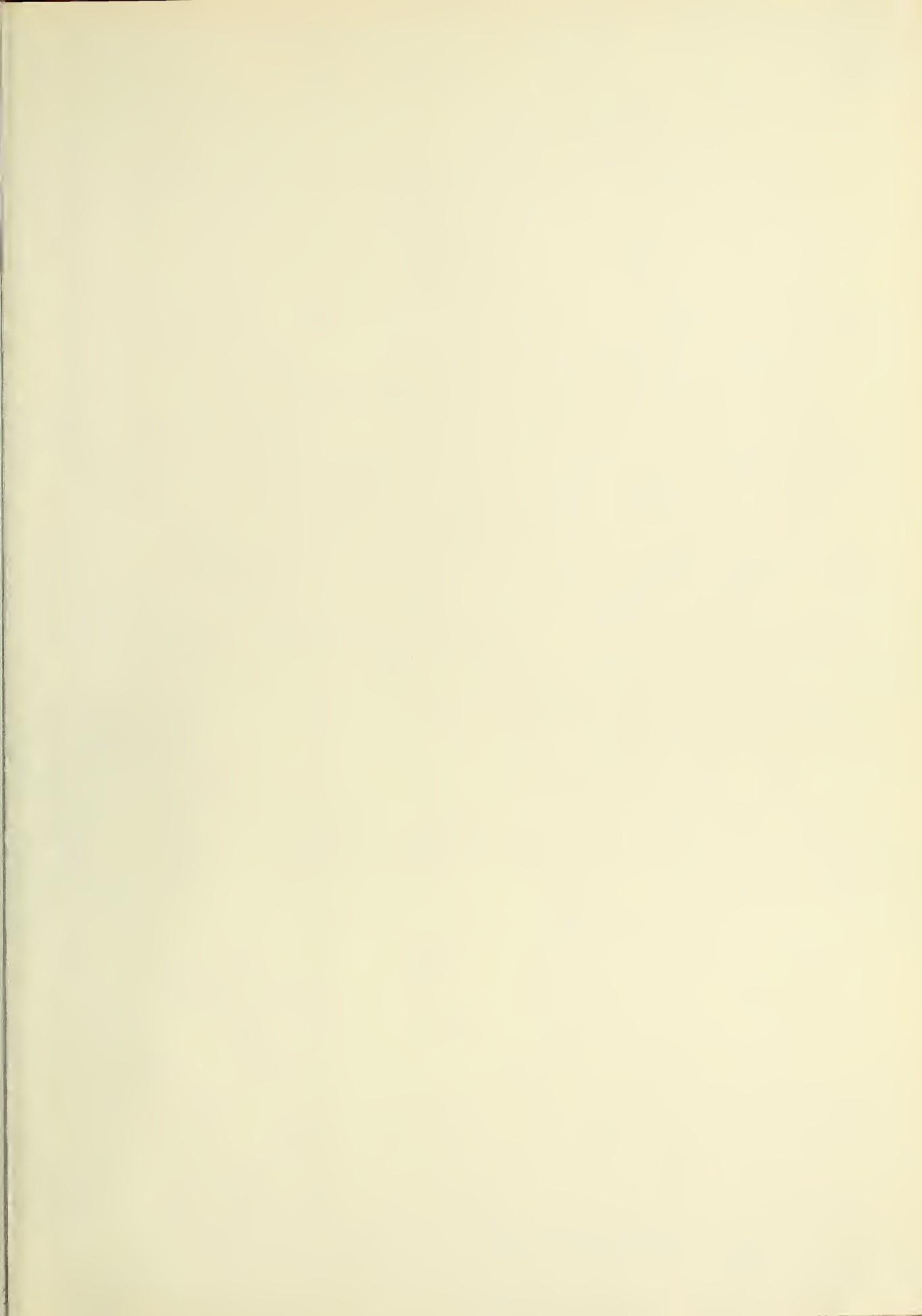
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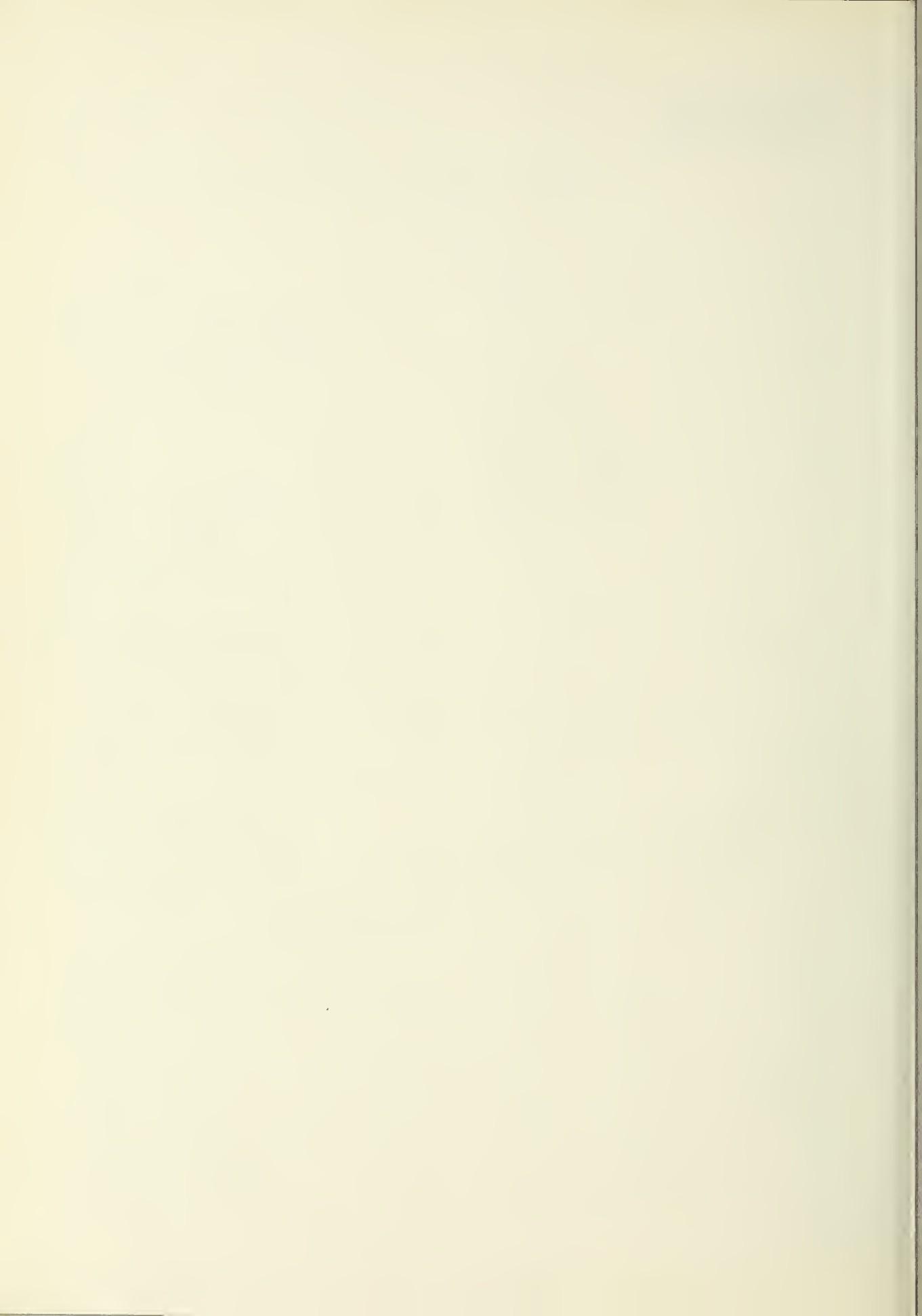
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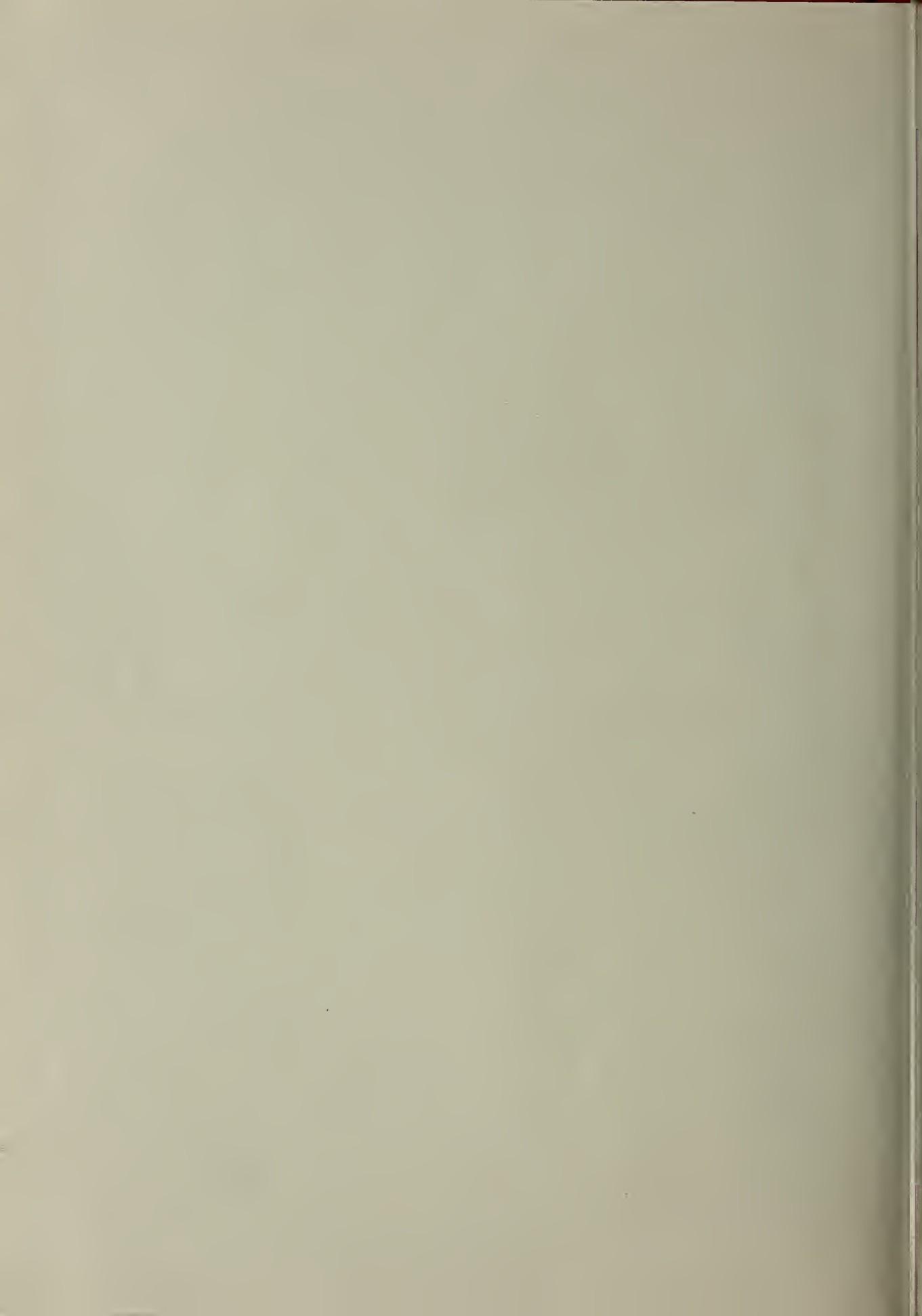
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